LifeSize® Multipoint™ User Guide

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About This Manual

The LifeSize Multipoint User Guide describes how to use the LifeSize Multipoint and describes the functionality of each feature of the Administrator and Conference Control interfaces for web-based configuration, monitoring and control.

Related Documentation

The LifeSize Multipoint documentation set is available on the LifeSize Utilities and Documentation CD-ROM and the Customer Support page of the LifeSize web site.

Note You require Adobe Acrobat Reader version 5.0 or later to open the PDF files. You can download Acrobat Reader free of charge from www.adobe.com.

Conventions Used in this Manual

The LifeSize Multipoint is sometimes referred to as “the LifeSize Multipoint” throughout this manual.

This manual uses the following conventions:

Convention	Description
Blue Headings in Upper Case	Level 1 headings introducing major sections.
☞	Pointing hand icon introduces a procedure.
orange link	Live links appear in orange.

1

CONFIGURING THE LIFESIZE MULTIPOINT

This section describes what you can configure and how to configure the LifeSize Multipoint-12 and LifeSize Multipoint-24, and includes the following topics:

- About the LifeSize Multipoint Administrator Interface
- About Administrators and Operators
- Viewing LED Information
- Viewing General Information About the LifeSize Multipoint
- Viewing Address Settings
- Changing Web Settings
- Configuring Security
- Viewing the Status Tab
- Configuring Settings
- Viewing Media Processors
- Protocols and the LifeSize Multipoint
- LifeSize Multipoint Services
- Viewing the Event Log
- Saving Configuration Settings
- Importing Configuration Settings

About the LifeSize Multipoint Administrator Interface

In the LifeSize Multipoint Administrator interface, you can configure management policies, media processing, call management protocols, and services. Table 1-1 explains the tabs that appear in the LifeSize Multipoint Administrator interface.

Table 1-1 *LifeSize Multipoint Administrator Interface Tabs*

Tab Name	Description
Status	Enables you to view resource usage information and the number of calls and conferences currently in progress.
Settings	Enables you to define the LifeSize Multipoint mode of operation.
Media Processing	Enables you to view the data and video processors and servers currently registered with the LifeSize Multipoint and access the web interface (if available) of registered devices to modify settings.
Protocols	Enables you to set the gatekeeper IP address and the Session Initiation Protocol (SIP) registrar address for routing calls to the LifeSize Multipoint from H.323 and Session Initiation Protocol (SIP) endpoints.
Services	Enables you to view, configure and edit the services that the LifeSize Multipoint provides.
Event Log	Enables you to LifeSize Multipoint alarm events.

Figure 1-1 and Table 1-2 display and list the elements in the LifeSize Multipoint Administrator interface.

Figure 1-1 *LifeSize Multipoint Administrator Interface Elements*

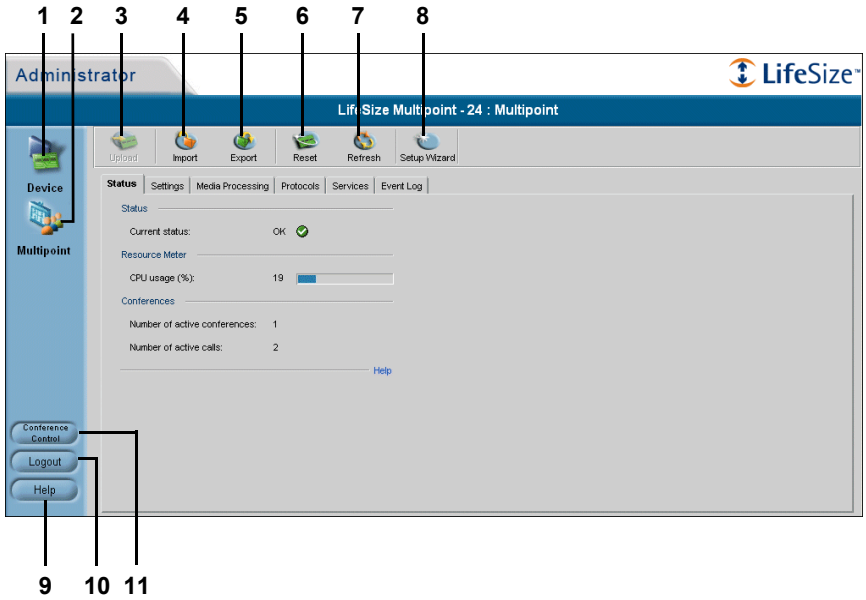

Table 1-2 *LifeSize Multipoint Administrator Interface Elements*

Number	Description
1	Device button
2	Multipoint button
3	Upload button
4	Import button
5	Export button
6	Reset button

Table 1-2 LifeSize Multipoint Administrator Interface Elements (continued)

Number	Description
7	Refresh button
8	Set Up Wizard button
9	Help button
10	Logout button
11	Conference Control button

About Administrators and Operators

Users must have authorization to access the LifeSize Multipoint interface. You can also require users to have Operator-level access to perform management functions during conference calls.

- Viewing Administrators and Operators
- Adding Administrators and Operators
- Editing Administrator and Operator Settings
- Deleting Administrators and Operators

Viewing Administrators and Operators

In the **Users** tab in the **Device** interface, you can view user names that are registered with this LifeSize Multipoint and their access level. Table 1-3 lists the elements that appear in the **Users** tab.

Table 1-3 User Tab Elements

Field	Description
Name	The user login name.
Access Level	The access privilege assigned to the user.
Telnet/FTP	Indicates whether the user is authorized to use Telnet or FTP to access the LifeSize Multipoint. Telnet and FTP access is intended for maintenance of the LifeSize Multipoint.

Adding Administrators and Operators

In the **Users** tab in the **Device** interface, you can add Administrators and Operators.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Users** tab.
3. Click **Add**.

   The **Add User** dialog box appears.
4. In the **User name** field, enter the name you want the Administrator or Operator to log in with.
5. In the **Access Level** field, choose the required authorization level for this user:
   - **Administrator**—Allows this user to launch the Administrator interface, use the Conference List that has links to web pages of current conferences, share conference moderation with another user, and access this device through Telnet, FTP, and the LifeSize Upgrade Utility. You can assign up to ten users Administrator authorization.
   - **Operator**—Allows this user to share conference moderation with another user and to access the Conference List that has links to web pages of current conferences. Up to 50 users can be assigned Operator authorization.
6. In the **Password** field, enter the password this user uses to log in with.

   Passwords can contain a maximum of 32 characters and can include the “a-z”, “A-Z” and “0-9” characters only.
7. In the **Confirm password** field, re-enter the password you entered in step 6.
8. Select **Enable for Telnet/FTP** to allow this user to access this device through Telnet and FTP. Telnet and FTP access is intended for maintenance of the LifeSize Multipoint
9. On the toolbar, click **Upload**.

Editing Administrator and Operator Settings

In the **Users** tab in the **Device** interface, you can edit the settings for a user with Administrator or Operator-level access.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Users** tab.
3. Click the user you want to edit settings for.
4. Click **Edit**

   The **Edit User** dialog box appears.
5. In the **User name** field, enter the name you want the Administrator to log in with.
6. In the **Access Level** field, choose the authorization level for this user:
   - **Administrator**—Allows this user to launch the Administrator interface, use the Conference List that has links to web pages of current conferences, share conference moderation with another user, and access this device through Telnet, FTP, and the LifeSize Upgrade Utility. You can assign up to ten users Administrator authorization.
   - **Operator**—Allows this user to share conference moderation with another user and to access the Conference List that has links to web pages of current conferences. Up to 50 users can be assigned Operator authorization.
7. In the **Password** field, enter the password this user uses to log in with.
8. In the **Repeat Password** field, re-enter the password you entered in step 6.
9. Select **Enable for Telnet/FTP** to allow this user to access this device through Telnet and FTP.
10. On the toolbar, click **Upload**.

Deleting Administrators and Operators

You can delete users with Administrator or Operator-level access from the LifeSize Multipoint system.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Users** tab.
3. Click the user you want to delete and then click **Delete**.

Viewing LED Information

In the **LED Monitoring** tab in the **Device** interface, you can monitor the status of all the LifeSize Multipoint front panel LED indicators. The LEDs are displayed in diagrams reproducing the layout of the LifeSize Multipoint front panel.

Procedure

1. In the LifeSize Multipoint interface, on the sidebar, click **Device**.
2. Click the **LED Monitoring** tab.
3. Place the mouse cursor over the required LED in the **LED Monitoring** tab to view a description of that LED.

Viewing General Information About the LifeSize Multipoint

The **Basics** tab in the **Device** section of the LifeSize Multipoint interface, you can view and configure general information about the LifeSize Multipoint.

Procedure

1. In the LifeSize Multipoint interface, on the sidebar, click **Device**.
2. Click the **Basics** tab.

   Table 1-4 describes the elements that appear in the **Basics** tab.

Table 1-4 *Device Basic Tab Elements*

Field	Description
Device name	Identifies the model number of the device.
Location	User-configured description about the device. Click this field to enter a new description, and then click **Upload** on the toolbar.
Serial number	The serial number that the factory assigned to the device.
License key	Your LifeSize license key for accessing LifeSize Multipoint devices. Click **Update** to modify your LifeSize license key. Click **Details** to view which modules your current license enables you to use.
Hardware version	The version number of the current hardware configuration.
Software version	The first two digits of the version number of the software installed on the device. Click **Details** to view details of the versions of software components installed on the device.
Date/Time	The date and time that the LifeSize Multipoint clock reports.

Related Topics

- Updating Your License on page 9
- Viewing Software Version Details on page 9
- Setting the Time and Date on the LifeSize Multipoint on page 10
- Setting the LifeSize Multipoint Location on page 11

Updating Your License

You use the **Basics** tab to update your LifeSize Multipoint license.

Procedure

1. On the sidebar, click **Device**.
2. Click the **Basics** tab.
3. Click **Update**.

   The **Licensing and Registration** dialog box appears.
4. Access the LifeSize web site to register before requesting a new license key by clicking the **Click here to register at the web site** link, or by copying the URL that appears in the lower half of the screen into your browser.
5. Enter your new license key in the **New license key** field and click **Upload** to activate the new license key.

Viewing Software Version Details

You use the **Basics** tab to view expanded software version information.

Procedure

1. On the sidebar, click **Device**.
2. Click the **Basics** tab.
3. Locate the **Software version** field and click **Details**.

   The **Version Details** dialog box appears.

Setting the Time and Date on the LifeSize Multipoint

In the **Basics** tab, you can set the date and time that the LifeSize Multipoint keeps.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Make sure the **Basics** tab is selected.
3. Next to the **Date/Time** field, click **Change**.

   The **Change Time** dialog box appears. The date and time the LifeSize Multipoint reports appear in the **Set time to** field.
4. In the **Change** field, select the unit of time that you want to change.

Note There is no unit to change AM and PM. This designation rolls automatically when the hour rolls past 12 backward or forward. Similarly, seconds roll minutes, minutes roll hours, hours roll days, and days roll months.

5. In the **Set board time to** field, choose the up or down arrow to change that unit.

   The unit you choose changes in the direction you choose: higher (up) or lower (down).
6. Repeat step 4 and step 5 for as many units as you want to change.
7. Select **NTP enabled** to synchronize the time with a network server clock, and to select time zone settings.
8. On the toolbar, click **Upload**.

Setting the LifeSize Multipoint Location

You can install the LifeSize Multipoint anywhere on your network including at a remote site. In the **Basics** tab, you can describe the current location of the LifeSize Multipoint.

Procedure

1. On the sidebar, click **Device**.
2. Click the **Basics** tab.
3. In the **Location** field, enter the location information about the LifeSize Multipoint that you want to display.

   The field displays up to 23 characters.
4. On the toolbar, click **Upload** to save to configuration memory.

Viewing Address Settings

In the **Addressing** tab, you can view address information for the LifeSize Multipoint such as IP address informations, Domain Name Server (DNS) information and Ethernet port speed and duplex. Table 1-5 describes the elements that appear on the **Addressing** tab.

Table 1-5 *Addressing Tab Elements*

Field	Description
IP Address	
IP Address	The IP address assigned to the LifeSize Multipoint.
Router IP	The address of the router that the LifeSize Multipoint uses.
Subnet Mask	The subnet address that the LifeSize Multipoint uses.
DNS	
DNS suffix	The DNS alias that the LifeSize Multipoint uses.
Preferred DNS Server	The IP address of the primary DNS server that the LifeSize Multipoint uses.
Alternate DNS server	The IP address of the alternative DNS server that the LifeSize Multipoint uses.

Table 1-5 Addressing Tab Elements (continued)

Field	Description
Ethernet	
Port type	Displays information about the Ethernet connection (read-only).
Port settings	The Ethernet speed and duplex that the LifeSize Multipoint uses.
MAC address	Displays the Mandatory Access Control (MAC) code assigned to the LifeSize Multipoint (read-only).
Port status	Displays the actual Ethernet speed and duplex the LifeSize Multipoint uses on the network (read-only).

Related Topics

- Changing Address Settings on page 12

Changing Address Settings

In the **Addressing** tab, you can change the following address information for the LifeSize Multipoint—IP address information, DNS information and the Ethernet port speed and duplex.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Addressing** tab.
3. To change an IP address setting, do any of the following steps:
   - In the **IP Address** field, enter the IP address you want to assign to the LifeSize Multipoint.
   - In the **Router IP** field, enter the IP address of the router you want the LifeSize Multipoint to use.
   - In the **Subnet Mask** field, enter the subnet mask you want the LifeSize Multipoint to use.
4. To change or add DNS information, do the following steps:
   - In the **DNS suffix** field, enter the alias you want to assign to the current LifeSize Multipoint.

- In the **Preferred DNS server** field, enter the IP address of the primary DNS server that you want the LifeSize Multipoint to use.
- In the **Alternate DNS server** field, enter the IP address of the back-up DNS server that you want the LifeSize Multipoint to use.

5. In the **Port settings** field, choose the Ethernet port and duplex speed value you want to set.
6. On the toolbar, click **Upload**.

Related Topics

- Viewing Address Settings on page 11

Changing Web Settings

On the Web tab you can set the administrator web server port, the online help URL, and create or import a web server certificate.

- Changing the Administrator Interface Web Server Port on page 13
- Installing and Linking the Online Help on page 14
- Creating and Importing a Web Server Certificate on page 14

Changing the Administrator Interface Web Server Port

In the General section, in the Web server port field, 80 is the default Administrator interface web server port. For additional security, you can modify the web server port in the **Web** tab.

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Web** tab.
3. In the **Web server port** field, enter the port number.
4. On the toolbar, click **Upload**.

Installing and Linking the Online Help

If you want to install the online help on a shared network location and link it to the LifeSize Multipoint Administrator, perform the following steps:

Procedure

1. Copy the online help library from the LifeSize Utilities and Documentation CD-ROM to a shared folder on a PC on your network.
2. Log in to the LifeSize Multipoint Administrator interface.
3. In the **Online help URL** field of the Board (or Device) **Web** tab, enter the directory path to the help files you installed on your PC.

   The path must have the form:

   `file://computerName/sharedDirectory`

   where computerName is the name of the computer on the network and `sharedDirectory` is the path to the Online Help folder on the CD-ROM. For example:

   `file://myComputer/Shared/Online Help`
4. Click **Upload** in the LifeSize Multipoint Administrator toolbar, followed by **Refresh**.
5. You may need to log out and log back in to the LifeSize Multipoint Administrator for the change to take effect.

Creating and Importing a Web Server Certificate

In the HTTPS section, click **Manage Certificate** to create a web server certificate with the wizard or click **Import Certificate** to import an existing certificate.

CONFIGURING SECURITY

You can configure the access that external programs have to the LifeSize Multipoint. These external programs include Telnet, Simple Network Management Protocol (SNMP), File Transfer Protocol (FTP) and ICMP (Internet Control Message Protocol or “ping”).

Procedure

1. In the Administrator interface, on the sidebar, click **Device**.
2. Click the **Security** tab.
3. From the **Security mode** field, choose the access level you want the LifeSize Multipoint to support:
   - **Standard**—Allows SNMP, Telnet, FTP, and ICMP to access the LifeSize Multipoint.
   - **High (no Telnet or FTP)**—Allows access to the LifeSize Multipoint only through SNMP and ICMP.
   - **Maximum (no Telnet, FTP, SNMP, or ICMP)**—Disallows external programs to access the LifeSize Multipoint.
4. In the SNMP **Read community** and **Write community** fields, enter default strings used to enable SNMP communication between the LifeSize Multipoint and an external application such as the LifeSize Upload Utility.

VIEWING THE STATUS TAB

The **Status** tab in the **Multipoint** interface displays information about LifeSize Multipoint resource usage and performance. Table 1-6 lists the information in the **Status** tab.

Table 1-6 *Status Tab Sections*

Section Name	Description
Status	Indicates the current operational state of the LifeSize Multipoint as follows: ■ OK—Indicates at least one of the following states: □ The LifeSize Multipoint is registered to a gatekeeper. □ The auto-attendant feature is enabled and the LifeSize Multipoint is not configured to use a gatekeeper. ■ Error—Indicates at least one of the following states: □ The LifeSize Multipoint is configured to use a gatekeeper, but is not connected to a gatekeeper. □ No gatekeeper or auto-attendant setting is configured.
Resource Meter	■ CPU Usage (%) field—Indicates the percentage of LifeSize Multipoint resources currently occupied. We recommend that this value not exceed 90 percent.
Conferences	■ Number of active conferences—Indicates the number of conferences currently hosted on the LifeSize Multipoint. ■ Number of calls—Indicates the current number of calls on the LifeSize Multipoint.

CONFIGURING SETTINGS

In the **Settings** tab, you can perform the tasks described in the following sections:

- Setting the User Interface Language on page 18
- Setting the Unit Identifier on page 19
- Setting an Operator Number on page 20
- Dialing Directly to the LifeSize Multipoint on page 20
- Configuring DTMF Conference Control on page 21
- Configuring Themes on page 22
- Configuring Delimiter Settings on page 33
- Configuring Quality of Service on page 23
- Configuring LifeSize Multipoint Dynamic Layouts on page 24
- Configuring LifeSize Multipoint Alert Indications on page 25
- Configuring Conference Management Settings on page 31
- Configuring Delimiter Settings on page 33
- Disconnecting Participants on Communications (ICMP) Failure on page 34
- Sending Advanced Commands on page 34
- Opening a Telnet Terminal on page 40
- Enabling and Disabling High Definition Continuous Presence on page 19

Setting the User Interface Language

In the **Basics** section of the **Settings** tab, you can configure the language that the LifeSize Multipoint supports. Table 1-7 lists the languages that the LifeSize Multipoint supports.

Table 1-7 *Supported Languages in the LifeSize Multipoint User Interface*

Language	Administrator Interface	Conference Control Interface	Text Overlay on Conference Video
English	*	*	*
Chinese (simplified)	*	*	*
Japanese	*	*	
Portuguese	*	*	*
Spanish	*	*	*
Russian	*	*	*

Note To view Chinese or Japanese fonts properly in the Administrator interface, the computer (where the web browser is running) should support the appropriate languages. You should set its default language (which you select from the **Control Panel > Regional and Language Options** menu) accordingly.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Basics**.
4. In the **User interface language** field, select the required language.

Setting the Unit Identifier

In the **Basics** section of the **Settings** tab, you can set the LifeSize Multipoint identifier. This identifies the LifeSize Multipoint in the following situations:

- During gatekeeper/SIP registration.
- When inviting endpoints—When inviting endpoints into a conference.
- In text the overlay for the cascaded LifeSize Multipoint unit in cascaded conferences.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Basics** (if not already selected).
4. In the **Multipoint Identifier** field, enter an identifier (up to a maximum of 15 characters). For example, “London office.”

Enabling and Disabling High Definition Continuous Presence

In the **Basics** section of the **Settings** tab, you can enable or disable High Definition Continuous Presence.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Basics** (if not already selected).
4. In the General section, select or deselect the **Enable High Definition Continuous Presence** check box.

Note You must reset for changes to take effect.
If you select Enable High Definition Continuous Presence, the port capacity is reduced by 8 high rate or 16 standard rate ports.

Setting an Operator Number

During a conference, you can invite an Operator to join and provide consultation and support. To do this, in the **Basics** section of the **Settings** tab, you set the E.164 number of the designated operator that the LifeSize Multipoint dials when a user clicks the **Operator** button in the Conference Control interface.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Basics**.
4. In the **pre-defined endpoints** section, in the **Operator** field, enter an E.164 number for the operator.

Dialing Directly to the LifeSize Multipoint

You can allow users to dial directly to the LifeSize Multipoint IP address via the "auto-attendant" mechanism without the need to register to an H.323 gatekeeper or SIP registrar.

Users specify the conference they wish to create or join via the LifeSize Multipoint IVR.

If the LifeSize Multipoint is already registered to an H.323 gatekeeper or SIP registrar, you can still allow users to access the auto-attendant mechanism by specifying an auto-attendant number which is registered with the appropriate H.323 gatekeeper or SIP registrar. Any call that the LifeSize Multipoint cannot route to a valid conference is be sent to the auto-attendant.

Procedure

1. In the Administrator interface, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Auto Attendant** to enable the auto-attendant mechanism.

   Enabled by default.
4. (Optional) Select **Enable Auto Attendant (IVR)** and configure an auto-attendant number.

   Use this option if the LifeSize Multipoint is already registered to an H.323 gatekeeper or SIP registrar.

5. (Optional) Select a language from the **Auto Attendant Display Messages** field.

   English and any additional languages according to the extended fonts burned on to the LifeSize Multipoint during installation are available. Set to English by default.

6. (Optional) Select a default service prefix from the drop-down list for use when the user does not specify a valid service prefix when joining or creating a conference. Set to the default high rate service by default.

CONFIGURING DTMF CONFERENCE CONTROL

In the **Conference Control** section of the **Settings** tab, you can activate Dual Tone Multi-Frequency (DTMF) and H.243 conference control. DTMF and H.243 conference control allow you to perform the following actions on a conference from the remote control or keypad of your endpoint:

- Moderate conference
- Mute or unmute your line
- Control your volume
- Block or unblock admission to a conference (Moderator-level users only)
- Invite new participants (Moderator-level users only).

Procedure

1. In the Administrator interface, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Conference Control**.
4. Select **Enable DTMF Conference control**.
5. In the **DTMF Conference Control prefix** field, choose a symbol for starting the DTMF conference control session. You can select pound (#) or asterisk (*). The default is *.
6. Select **Enable H.243 Conference control**.

CONFIGURING THEMES

In the **Themes** section of the **Settings** tab, you can preview pre-configured video display settings and configure custom themes. You select theme options when configuring services. You can configure a custom theme specifying the text font, color, background color, and border settings for active participants.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Themes**.
4. Select one of the themes from the **Theme** field.

   If you select **Classic (customizable)**, you can configure the font size, subframe and border color. Follow step 5 to step 10.

   If you select **Modern (customizable)**, you can configure the font size only. Go to step 6 and then jump to step 10.

   If you select any other theme, the font size, subframe and border color are automatically set. Go to step 10.
5. In the **Font background transparency** field, choose one of the following settings:
   - **None**—A solid background against which the text appears.
   - **Half**—A moderate background against which the text appears.
   - **Full**—A transparent background against which the text appears.

6. In the **Font size** field, choose a font size:
7. In the **Font foreground color**, **Font background color** and **Empty subframe color** fields, click to select a color for these settings.
8. You can display a default border around all participant sub-frames. Select **Display default border** and click to select the default border color.
9. Select **Display active speaker border** to set a default border for the active speaker.
10. The **Basic font** field displays the font currently installed on the LifeSize Multipoint. Select **Enable extended font** to enable Asian fonts.

    You can view the effects of your settings in the **Preview** section. This section displays the selected theme settings. This includes a layout with four sub-frames, the theme border highlight colors, active speaker border highlight color, font formatting, screen background color, and text background settings.

Configuring Quality of Service

You can assign a Quality of Service (QoS) priority level to video and voice calls using either pre-configured system settings or by creating your own settings.

Quality of Service settings involve configuring the LifeSize Multipoint to add a Quality of Service (QoS) DiffServ Code Point value in the IP header of outbound packets. Routers on the network that support QoS can give preferential treatment for bandwidth, latency and jitter to such coded packets and facilitate the efficient transmission of packets. You can set QoS parameters on the LifeSize Multipoint for voice calls, video calls or both.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Quality of Service**.
4. In the **Quality of service support** field, set the required DiffServ Code Point value for each media type by clicking one of the following radio buttons:
   - **None**—Select to disable Quality of Service support
   - **Default**—Select to assign the default DiffServ Code Point value for each media type. The default settings represent LifeSize recommendations.
   - **Custom**—Select to assign your own DiffServ Code Point value for each media type.

   If you select **Default**, the system automatically enters Quality of Service settings. If you select **Custom**, follow the steps below.
5. In the **Voice Priority** field of the **Video Calls** section, enter a whole number from 0 to 63 to set the DiffServ Code Point value of voice packets that the LifeSize Multipoint sends out. The default value is 46.
6. In the **Video Priority** field of the **Video Calls** section, enter a whole number from 0 to 63 to set the DiffServ Code Point value of video packets that the LifeSize Multipoint sends out. The default value is 34.
7. In the **Voice Priority** field of the **Voice Calls** section, enter a whole number from 0 to 63 to set the DiffServ Code Point value of voice packets that the LifeSize Multipoint sends out. The default value is 46.

Configuring LifeSize Multipoint Dynamic Layouts

In the **Dynamic Layouts** section of the **Settings** tab you can define the exact layout transition order used by conferences.

Dynamic layouts are activated individually for each service. When selected, the conference layout changes automatically as participants join or leave.

Procedure

1. In the Administrator interface, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Dynamic Layouts**.
4. Click a layout image to select or deselect that specific layout.

CONFIGURING LIFESIZE MULTIPOINT ALERT INDICATIONS

In the **Alert Indications** section of the **Settings** tab, you can select which events trigger Simple Network Management Protocol (SNMP) traps. You can also define multiple SNMP servers to which the LifeSize Multipoint sends the SNMP traps and configure which events to display in the **Event Log** tab.

This section describes the following topics:

- Enabling LifeSize Multipoint Alert Indications and Setting Security Levels on page 25
- Configuring SNMP Trap Servers on page 29
- Editing SNMP Trap Servers on page 30
- Deleting SNMP Trap Servers on page 30

ENABLING LIFESIZE MULTIPOINT ALERT INDICATIONS AND SETTING SECURITY LEVELS

In the **Alert Indications** section of the **Settings** tab, you can configure which alerts will be enabled and set a severity level for each one.

Table 1-8 lists alert indications as well as the SNMP trap associated with them.

Table 1-9 lists the structure of the standard *coldStart* and *warmStart* traps (as defined in RFC 1907) and the standard *linkDown* and *linkUp* traps (as defined in RFC 1573).

Table 1-8 *LifeSize Multipoint Alert Indications*

Event Type	Trap is sent when...
Abnormal disconnect	A call disconnects for a reason other than normal, busy, or no answer.
Authentication failure (generic)	A user tries to log in to the web interface and authentication fails.

Table 1-8 *LifeSize Multipoint Alert Indications (continued)*

Event Type	Trap is sent when...
Authentication failure (specific)	The conference PIN is incorrect.
Call disconnected by remote endpoint	A call disconnects normally by a remote endpoint.
Configuration changed	A configuration change is uploaded from the web interface.
Configuration exported	Configuration is exported via the web interface.
Configuration imported	Configuration is imported via the web interface.
Corrupt WEB data	Corrupt web files are present in the LifeSize Multipoint.
Gatekeeper registration state change	A change occurs in the registration status of the LifeSize Multipoint with the gatekeeper.
General alarm	A system failure is detected.
Incompatible software version install	An attempt to burn a version of the LifeSize Multipoint software onto incompatible hardware occurs.
Loss of Ethernet	The network returns after going down. Indicates the time at which the network was restored.
MP lost	Communication with a registered media processor has broken.
MP registration failure	The media processor registration to the LifeSize Multipoint failed.
Max resource meter	A high CPU level (85%) is reached in the LifeSize Multipoint.
Network problem	A problem occurs on the network.
Overheating	The configured temperature thresholds for the device are exceeded. Overheating can cause serious damage to the functioning of the device.
Power-down	The LifeSize Multipoint is shutting down.

Table 1-8 *LifeSize Multipoint Alert Indications (continued)*

Event Type	Trap is sent when...
Power-up	The LifeSize Multipoint has begun operation.
Services table is changed	The service table has been modified.
Snmp request with invalid community	An SNMP request uses community values that do not match those of the LifeSize Multipoint.
Snmp write request	An SNMP write request is sent to the LifeSize Multipoint.
User account locked	A user account is disabled.
User logged in	A user successfully logs in to the system via the web interface.
User logged out	A user logs out of the system via the web interface.

Table 1-9 *Standard SNMP Trap Event Types*

Event Type	Trap is sent when...
Cold start	The LifeSize Multipoint has been reset using the button on the front panel.
Warm start	A reset of the LifeSize Multipoint has been performed using the Administrator interface.
Link down	Standard SNMP MIB trap indicating that the network connection is down with details about the cause and time of connection loss.
Link up	Standard SNMP MIB trap indicating that the network connection has been reestablished.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Alert Indications**.
4. In the **Events** section, select the check boxes in the **Enabled in the Event Log** column for all the events that you want to display in the event log.
5. For each event you enable, choose one of the following severities in the **Severity** column:
   - **Cleared**—Enumeration 0. One or more previously reported alarms have been cleared.
   - **Information**—Enumeration 1. Notification of a non-erroneous event.
   - **Critical**—Enumeration 2. A service-affecting event has occurred and requires immediate corrective action.
   - **Major**—Enumeration 3. A service-affecting event has occurred and requires corrective action to prevent the condition becoming more serious.
   - **Minor**—Enumeration 4. A non-service-affecting event has occurred and requires corrective action to prevent the condition becoming more serious.
   - **Warning**—Enumeration 5. A potential or impending service-affecting event has been detected, but no significant events have occurred yet. Action should be taken to further diagnose and correct the problems to prevent the condition becoming more serious.

Tip You can click **Select All** to select all events or **Clear All** to clear all events.

Configuring SNMP Trap Servers

In the **Alert Indications** section of the **Settings** tab, you can define the IP address, port, and enabled traps for multiple SNMP trap servers to which the LifeSize Multipoint sends the SNMP traps, and specify which events to display in the **Event Log** tab.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Alert Indications**.
4. In the **SNMP Traps Server** section, click **Add**.

   The **SNMP Trap Servers Properties** dialog box appears.
5. In the **SNMP Trap server address** field, enter the address for the SNMP trap server.
6. In the **Port** field, enter the port of the SNMP trap server. The default port for SNMP servers is 162.
7. In the **Enabled traps** section, select which traps you want to enable:
   - To disable a trap, click it in the **Enabled traps** area and then click **Remove**.
   - To enable a trap, click it in the **Disabled traps** area and then click **Add**.
   - To enable all traps, click **Add All**.
   - To disable all traps, click **Remove All**.
8. Click **Upload** to save your settings.

   The configured SNMP trap server appears in the **SNMP Trap Servers** section.

Editing SNMP Trap Servers

In the **Alert Indications** section of the **Settings** tab, you can edit a configured SNMP trap server.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Alert Indications**.
4. In the **SNMP Trap Servers** section, click the configured SNMP trap server and then click **Edit**.
5. Click **Upload** when you finish your edits.

Deleting SNMP Trap Servers

You can delete configured SNMP trap servers in the **Alert Indications** section of the **Settings** tab.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Alert Indications**.
4. In the **SNMP Trap Servers** section, click the configured SNMP trap server and then click **Delete**.

Configuring Conference Management Settings

In the **Advanced** section of the **Settings** tab, you can configure settings for conference registration with the gatekeeper and determine how participants can create and join conferences.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Advanced**.
4. Select **Register conference ID** to register existing conference IDs with the gatekeeper and SIP server to enable participants dialing in to a conference from remote locations to connect to the target conference on the LifeSize Multipoint. This setting is deselected by default.

Note When working with SIP, you must configure a registrar.

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5. In the **Conferences can be created using** field, choose one of the following methods through which conferences can be created:
   - **Scheduler only**—Enables conference creation only using a conference scheduling application
   - **Scheduler, Web and Control API—**Enables conference creation using a conference scheduling application, the Conference Control interface, or an external application that uses the LifeSize Multipoint API.
   - **Scheduler, Web, Control API and dial-in** (default)—Enable all the conference creation methods listed above, as well as dial-in for ad-hoc conference creation.
6. Select **When using the web, only operators or administrators can create a conference** to grant conference creation authorization only to users with Administrator or Operator privileges. If you want users with

all levels of access to be able to create a conference, leave this option deselected.

7. In the **Participants can join the conference using** field, choose one of the following methods through which participants can join a conference:
   - **Invite only**—Participants can join a conference only when the LifeSize Multipoint dials that participant.
   - **Invite and dial-in**—Participants can join a conference either by LifeSize Multipoint invitation or by dialing directly using a conference ID.
8. In the **Ad hoc conferences terminate when** field, choose the method through which dial-in (ad hoc) conferences terminate:
   - **Last participant leaves**—The conference terminates when the last participant leaves the conference.
   - **Conference creator leaves**—The conference terminates when the conference creator leaves the conference.
9. In the **External conference authorization policy** field, choose one of the following LifeSize Multipoint authorization policies for creating or joining conferences:
   - **None**—No authorization required.
   - **Notify**—The LifeSize Multipoint notifies an external application such as a conference scheduler that accesses or controls LifeSize Multipoint resources about conference creation or joining.
   - **Authorize**—The LifeSize Multipoint requests authorization from an external application such as a conference scheduler which accesses or controls LifeSize Multipoint resources to create conferences or allow participants to join conferences.

Configuring Delimiter Settings

You can specify a conference PIN or invite multiple participants as part of the string for dialing into the LifeSize Multipoint.

In the **Advanced** section of the **Settings** tab, you can configure the conference PIN delimiter and the multiple invite delimiter.

Procedure

1. In the Administrator interface, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Advanced**.
4. In the **PIN delimiter** field, enter the characters used as a separator between the conference ID and conference PIN when dialing into a conference. A conference is created with this PIN if no conferences already exist with the specified number. Valid delimiters include the pound sign (#) and asterisk (*).

   Triple asterisk (***) is a reserved delimiter for password-protected conferences and should not be used for any other purpose.

   Double asterisk (**) is a reserved delimiter for invitations and should not be used for other purpose.
5. In the **Invite delimiter** field, enter the characters used to separate participant numbers in multiple participant invitation. Valid delimiters include the pound sign (#) and asterisk (*). The default invite delimiter setting is two asterisks (**).

Disconnecting Participants on Communications (ICMP) Failure

When the LifeSize Multipoint sends audio or video data to an unreachable endpoint, the network notifies the LifeSize Multipoint using the ICMP protocol. The LifeSize Multipoint can detect ICMP messages and disconnect the endpoint automatically. You enable automatic endpoint disconnection in the **Advanced** section of the **Settings** tab.

If this option is not selected, the LifeSize Multipoint ignores ICMP error packets.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Advanced**.
4. Select **Disconnect participants on communication (ICMP) failure**.
5. In the **Disconnect on** field, make one of the following sections:
   - **Audio failure**—The call disconnects only if the audio connection fails. The call continues if the video connection fails and the audio connection remains. This is the default setting.
   - **Audio or video failure**—The call disconnects if either the audio or video connection fails.

Sending Advanced Commands

In the **Advanced** section of the **Settings** tab, you can send text-based commands used for the enhanced control of the LifeSize Multipoint. Advanced commands are not case-sensitive.

Note We recommend that only advanced users or users who have consulted with LifeSize Customer Support perform actions involving advanced commands.

Table 1-10 lists all available advanced commands.

Table 1-10 *List of Available Advanced Commands*

Command	Description	Parameters	Default
Aspect ratio conversion mode	Same conversion method used for both Standard Definition and High Definition users.	**BlackBars—**no info loss **Crop—**no black bars	
AutoAttendantShowVendorLogo	Displays a vendor logo in the video IVR messages.	**disable** **enable**	Enabled
Conference control Web refresh interval	Indicates the length of time (in seconds) after which the Conference Control interface refreshes automatically.		10
DTMF forwarding	Indicates the target of DTMF forwarding.	**to all**—All endpoints in the conference. **to gateways**—To gateways only. **to none**—DTMF is disabled.	none
DuoVideo		**disable** **enable**	Disabled
Enable in-band DTMF detection	Enables support for in-band DTMF signaling.	**Always** or **Only during IVR**	Always
First audio announcement interval (msec)	Indicates the length of time (in milliseconds) between the start of the conference and the first audio announcement.		Disabled

Table 1-10 *List of Available Advanced Commands (continued)*

Command	Description	Parameters	Default
Font align	Determines whether text overlay (TOL) on a video screen is positioned away from picture borders.	**All**—Text positioned away from horizontal and vertical borders. **Horizontal**—Text positioned away from horizontal borders and centered horizontally. **Vertical**—Text positioned away from vertical borders and centered vertically. **None**—Text is always positioned bottom center.	All
G.728 mode	Determines the form of encoding for the G.728 audio codec RTP header.	**Non-standard**—For use if you experience audio problems when using VCON endpoints with the G.728 audio codec. **Standard**—For normal G.728 use with all endpoints except VCON products.	
H.239 live role support		**disable** **enable**	
H.323 hide stack	Disables H.323 stack prints.		H.323 Stack printing is disabled by default.
H.323 show stack	Enables H.323 stack prints. These print the protocol stack info and errors and are useful for debugging stack issues		
H323 show status	Prints a snapshot of H.323 stack-related information.		

Table 1-10 *List of Available Advanced Commands (continued)*

Command	Description	Parameters	Default
HD Minimal Rate	If a user joins a conference at a call rate that is below the defined minimum for the HD service, the LifeSize Multipoint considers the call a standard definition call.	Any number in the range 256-2048.	512
Handle DTMF after XML notification	Instructs the LifeSize Multipoint to send DTMF signals to an external server and other specified destinations.	**no**—LifeSize Multipoint sends DTMF signals to the external server only. **yes**—LifeSize Multipoint sends DTMF signals to the external server and to the destination set by the DTMF forwarding advanced command.	
NTP synchronization period	Sets the Network Time Protocol synchronization period (in seconds) between the LifeSize Multipoint and the NTP server.		21600

Table 1-10 *List of Available Advanced Commands (continued)*

Command	Description	Parameters	Default
Notify level	Sets the LifeSize Multipoint log notify level filter	**Fatal**—LifeSize Multipoint cannot continue to provide service (unrecoverable error). **Error**—User functionality problem (for example, call connect failure or no resources available). **Warning**—User functionality problem but the LifeSize Multipoint can continue to provide service. **Info**—Status prints for Customer Support use. **Advanced**—Like **Info** but more detailed. **Debug 1** through **Debug 4**—Debug levels.	Debug 3
QualiVision Settings hide	Disables the **QualiVision Settings** section in the **Settings** tab.		The QualiVision Settings section is hidden by default.
QualiVision Settings show	Enables the **QualiVision Settings** section in the **Settings** tab.		
RTP Base Port			
SIP bandwidth attribute type		**AS** **None** **TIS**	
SIP hide stack	Disables SIP stack prints.		SIP Stack printing is disabled by default.
SIP show stack	Enables SIP stack prints		

Table 1-10 *List of Available Advanced Commands (continued)*

Command	Description	Parameters	Default
SIP show status	Prints a snapshot of SIP stack related information.		
SIP video capability description type			
Set MTU size	Determines the maximum packet size across the network.		1500
Set terminal baudrate	Sets the baudrate of a serial terminal.	High (57600) Low (9600)	Low (9600)
Waiting room announcement interval (msec)	Indicates the length of time (in milliseconds) between waiting room announcements.		
Support RFC 2833 capability	Enables support for in-band DTMF signaling via packets within the audio channel as defined in the RFC 2833 standard.	**disable** or **enable**	enable

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Advanced**.
4. Click **Commands**.

   The **Advanced Commands** dialog box appears.

5. In the **Command** field, enter a command or choose one from the **Available Commands** field.
6. In the **Parameters** field, enter a parameter value for the command (where applicable) or choose one from the **Available Parameters** field.
7. Click **Send**.

   The results of the advanced command appear in the **Response** field, indicating whether or not the LifeSize Multipoint received and executed the command. If you send an invalid command, an "Unknown Command" message is displayed.

Opening a Telnet Terminal

In the **Advanced** section of the **Settings** tab, you can open a Telnet terminal to log error and troubleshooting information.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Settings** tab.
3. Click **Advanced**.
4. Click **Telnet**.
5. A separate browser opens with a Telnet terminal. When you finish with your Telnet session, click **Disconnect**.

Viewing Media Processors

In the **Media Processing** tab, you can view the list of data and video processors and servers currently registered with the LifeSize Multipoint and access the web interface (if available) of registered devices to modify settings. The **Media Processing** tab includes the following columns and fields:

- **Type**—This column displays the types of media processors registered with the current LifeSize Multipoint unit. The following types can appear in this column:
  - LifeSize Multipoint—The LifeSize Multipoint itself which is responsible for the signaling (H.323/SIP) and audio portions of a call.
  - MVP—The video processor responsible for the video portion of a call.

- **IP Address**—This column displays the IP address of the device on which the media processor operates.
- **Description**—This column displays a user-defined description of the media processor.
- **Total**—This field displays the total number of media processor units currently registered.

Protocols and the LifeSize Multipoint

In the **Protocols** tab, you can configure the LifeSize Multipoint to work with H.323 and Session Initiation Protocol (SIP) call-routing devices. The following sections detail the three types of call-routing devices you can configure the LifeSize Multipoint to work with:

- Configuring H.323 Gatekeeper Settings on page 41
- Integrating SIP with the LifeSize Multipoint on page 44

Configuring H.323 Gatekeeper Settings

In the **Protocols** tab, you can view and configure settings for H.323 gatekeeper and SIP call routing devices. The following sections detail the tasks you can perform in the **Protocols** tab:

- Configuring H.323 Gatekeeper Protocol Configuration on page 41
- Configuring Advanced H.323 Gatekeeper Protocol Settings on page 42

Configuring H.323 Gatekeeper Protocol Configuration

In the **Protocols** tab, you can configure the protocol settings of an H.323 gatekeeper to set how the LifeSize Multipoint and the gatekeeper interact.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Protocols** tab.
3. Make sure the **H.323** button is selected.

   The **H.323 Protocol Configurations** dialog box appears.

4. Select **Enable H.323 protocol** to enable the LifeSize Multipoint to operate with the H.323 protocol.
5. In the **Gatekeeper Address** field, enter the IP address of the gatekeeper.
6. In the **Gatekeeper Port** field, enter the port number of the gatekeeper. The default port is 1719.
7. Click **Go to Gatekeeper** to open a link to the Administrator web pages of the LifeSize Gatekeeper with which the LifeSize Multipoint registers.
8. Select **Strip local gatekeeper zone prefix if it appears in incoming cells** if you want the LifeSize Multipoint to strip the gatekeeper zone prefix from the dialed string of an incoming call. For example, if the zone prefix is 01 and you have selected this option, the LifeSize Multipoint removes 01 from every dial string beginning 01. Do not use this feature if the gatekeeper is already set to perform zone stripping.
9. If you did not perform step 8, skip to step 10. Otherwise, in the **Local Zone Prefix** field, enter the gatekeeper zone you want to strip.
10. Click **Upload**.

Warning Changing gatekeeper settings does not reset the LifeSize Multipoint unit, but might disconnect active calls.

Configuring Advanced H.323 Gatekeeper Protocol Settings

In the **Protocols** tab, you can configure advanced settings for LifeSize Multipoint communication with an H.323 gatekeeper.

Before You Begin

Make sure the basic H.323 gatekeeper protocol settings are correct. See Configuring H.323 Gatekeeper Protocol Configuration on page 41 for more information.

Procedure

1. In the **H.323 Protocol Configurations** dialog box click **Advanced H.323 Settings**.

   The **Advanced H.323 Setting** dialog box appears.

2. In the **RAS Port** field, enter the port on which the LifeSize Multipoint conducts RAS registration messaging with the gatekeeper. The default port is 1719.
3. In the **Signaling Port** field, enter the port on which the LifeSize Multipoint carries call signaling messages to and from the gatekeeper. The default port is 1720.
4. In the **Registration refresh every** field, enter the interval (in seconds) between registrations of the LifeSize Multipoint to the gatekeeper. The default value is 60 seconds.
5. In the **Multipoint Registration Mode** field, choose the mode of registration with the H.323 gatekeeper.
   - **Multipoint**—Use this setting to connect H.323 calls via the LifeSize Multipoint.
   - **Gateway**—Use this setting to register the LifeSize Multipoint as a gateway. This option enables the LifeSize Multipoint to work with a Cisco IOS Gatekeeper.
6. Select **Enable Fast Start** to speed up the connection time between the LifeSize Multipoint and incoming calls received through the gatekeeper. Channel setup messages are encapsulated within Q.931 setup messages. When you enable this option, the LifeSize Multipoint offers Fast Start channels to any outgoing call and attempts to select from channels offered in incoming calls. Do not use this option when working with HD services.
7. Select **Enable H.245 tunneling** to enable H.245 tunneling during call setup and connection between the LifeSize Multipoint and incoming calls received through the gatekeeper.

Note The H.245 tunneling feature works only with endpoints and gatekeepers that support H.245.

8. Click **OK**.

Integrating SIP with the LifeSize Multipoint

This section describes how to configure the LifeSize Multipoint and use different dialing plans for working in a Session Initiation Protocol (SIP) environment. The section describes the following topics:

- Configuring SIP Proxy Settings on page 44
- Configuring Advanced SIP Proxy Settings on page 46
- About the LifeSize Multipoint Dial Plan on page 47

Configuring SIP Proxy Settings

You can configure settings for SIP registrar profiles which set how the LifeSize Multipoint and the registrar interact.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Protocols** tab.
3. Make sure the **SIP** button is selected.

   The **SIP Protocol Configurations** dialog box appears.
4. Select **Enable SIP protocol** to enable LifeSize Multipoint communication with the SIP proxy.
5. In the **Default SIP domain** field enter the SIP domain of the LifeSize Multipoint as defined in the SIP server. The default is *multipoint.mycompany.com*.
6. Select **Using Microsoft LCS/OCS** to enable the LifeSize Multipoint to work with Microsoft Office Live Communication Server (LCS) or Microsoft Office Communications Server (OCS).
7. In the **SIP Server** section, choose one of the following options:
   - Select **Locate server automatically (using DNS)** if you wish the LifeSize Multipoint to automatically locate one of the SIP proxy servers that are present in the domain.

Note The **Locate servers automatically (using DNS)** option will only work if you have configured a valid IP address in the **Device** > **Addressing** > **Preferred DNS server** or **Alternate DNS server** field.

   - Select **Specify address** and enter the following:

- An IP address or host name of the SIP proxy, for example *proxy.company.com*.
- In the **port** field enter the communication port number of the SIP proxy address.
- In the **type** field select the transport connection type for sending messages to the SIP proxy according to the type supported by the SIP proxy—UDP or TCP. This field is mandatory. The default is UDP.

8. Select **Treat as outbound proxy** if you wish the LifeSize Multipoint to send all the SIP messages to the configured SIP proxy server. This is optional. The default is unchecked.
9. Select **Use Registrar** if you wish the LifeSize Multipoint to register with the SIP registrar using the name defined in the **Registration name** field, and to send service information to the registrar.
10. If you selected **Use Registrar** in step 9, enter the following information:
    - In the **Address** field enter the IP address or the host name of the SIP registrar. This field is mandatory.
    - In the **port** field enter the communication port number of the SIP registrar address.
    - In the **type** field select the transport connection type for sending registration requests to the registrar according to the type supported by the SIP registrar—UDP or TCP. This field is mandatory. The default is UDP.
11. In the **Local signaling port** field enter the number of the signaling port on which the LifeSize Multipoint communicates with the SIP proxy. The default is 5060.

Configuring Advanced SIP Proxy Settings

In the **Protocols** tab, you can configure advanced settings for LifeSize Multipoint communication with a SIP Proxy.

Before You Begin

Make sure the basic SIP proxy settings are correct. See Configuring SIP Proxy Settings on page 44 for more information.

Procedure

1. In the **SIP Protocol Configurations** dialog box click **Advanced SIP Settings**.

   The **Advanced SIP Setting** dialog box appears.
2. In the **"From" header** field select an addressing format that the LifeSize Multipoint will use for the information sent in the "From" header of messages for outgoing calls.
   - Select **Use local signaling IP address** if you wish the LifeSize Multipoint to use its local signaling IP address.
   - Select **Use fully qualified domain name (FQDN)** if you wish the LifeSize Multipoint to use the FQDN. Enter the fully qualified domain name of the LifeSize Multipoint, for example, *mcu.company.com*.
3. In the **"Contact" header** field select the addressing format that the LifeSize Multipoint will use for the information sent in the "Contact" header of messages for outgoing calls.
   - Select **Use local signaling IP address** if you wish the LifeSize Multipoint to use its local signaling IP address.
   - Select **Use fully qualified domain name (FQDN)** if you wish the LifeSize Multipoint to use the FQDN. Enter the fully qualified domain name of the LifeSize Multipoint, for example, *mcu.company.com*.
4. Select **Use proxy digest authentication** to enable LifeSize Multipoint authentication with a SIP proxy server using user name and password. Authentication is performed as defined in RFC 2617. This field is disabled by default.
5. If you selected **Use proxy digest authentication** in step 4, enter the following:
   - In the **User name** field enter the LifeSize Multipoint user name. The user name must match the name defined on the SIP proxy server.

- In the **Password** field enter the LifeSize Multipoint user password. The user password must match the password defined on the SIP proxy server.

6. Select **Use registrar digest authentication** to enable LifeSize Multipoint authentication with a SIP registrar server using user name and password. Authentication is performed as defined in RFC 2617. This field is disabled by default.
7. If you selected **Use registrar digest authentication** in step 6, enter the following:
   - In the **User name** field enter the LifeSize Multipoint user name. The user name must match the name defined on the SIP registrar server.
   - In the **Password** field enter the LifeSize Multipoint user password. The user password must match the password defined on the SIP registrar server.
8. Select **Enable Video Fast Update** to enable transport of Video Fast Update (VFU) requests to SIP endpoints.
9. Select **Support reliable provisional response (RFC 3262)** to enable the remote endpoint to request that the source endpoint sends an acknowledgment on receipt of 10x SIP messages.
10. Select **Use 'Empty Invite' when sending Invite messages to endpoints** to enable the remote endpoint to indicate preferred audio and video channels.
11. Click **OK**.

About the LifeSize Multipoint Dial Plan

You can configure the LifeSize Multipoint on a SIP network in one of the following two ways:

- The LifeSize Multipoint functions as a User Agent Client (UAC) which provides video, voice and data conference services.
- The LifeSize Multipoint is defined as a separate domain that provides conferences services.

The following sections describe these configurations:

- About Outgoing Calls from the LifeSize Multipoint on page 48
- About Incoming Calls to the LifeSize Multipoint on page 48

- Configuring the LifeSize Multipoint as a UAC on page 48
- Configuring the LifeSize Multipoint to Perform as a Separate SIP Domain on page 50

About Outgoing Calls from the LifeSize Multipoint

Making outgoing calls from the LifeSize Multipoint is the same whether it operates as a UAC or as a separate SIP domain. All LifeSize Multipoint outgoing SIP messages are sent through the proxy. The proxy activates an address resolution algorithm by consulting with a registrar or a DNS server or any other location server and routes the message to the correct destination.

Note If the user does not specify a domain in the dialing string, the LifeSize Multipoint appends the default domain to the dialed string. You can configure the default domain in the **SIP** section of the **Protocols** tab. See Configuring SIP Proxy Settings on page 44 for more information.

About Incoming Calls to the LifeSize Multipoint

The LifeSize Multipoint dial plan for incoming calls varies according to whether the LifeSize Multipoint is configured as a UAC registered to the domain registrar or as a separate SIP domain.

Note Whether working as a UAC or separate SIP domain, you can dial into the LifeSize Multipoint from a UAC by dialing a conference.id@mcu.ip.address URI and the call should always reach the LifeSize Multipoint.

Configuring the LifeSize Multipoint as a UAC

In the **Protocols** tab, you can configure the LifeSize Multipoint to function as a UAC. When configured as a UAC, the LifeSize Multipoint registers all services and conferences with a registrar. We recommend that you configure the LifeSize Multipoint as a UAC when working with a scheduler or in an environment that does not require ad hoc conference creation. In this configuration, the UAC can only dial directly into the LifeSize Multipoint by using a conference ID that has previously registered with the registrar.

Ad hoc conference creation using conference services, familiar in an H.323 environment, is not supported in a SIP environment. When a SIP UAC dials into the LifeSize Multipoint to a conference that does not yet exist, the proxy cannot resolve the LifeSize Multipoint address because the dialed conference ID is not registered with a registrar.

The LifeSize Multipoint registers each LifeSize Multipoint service and conference using the default domain defined in the LifeSize Multipoint SIP configuration and SIP proxy server as follows:

- Service: 60@company.com
  - 60—LifeSize Multipoint service prefix
  - @company.com—LifeSize Multipoint default domain
- Conference: 601234@company.com
  - 601234—LifeSize Multipoint conference ID (service prefix + unique conference identifier)
  - @company.com—LifeSize Multipoint default domain on which the conference is hosted.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Protocols** tab.
3. Make sure the **SIP** button is selected.

   The **SIP Protocol Configurations** dialog box appears.
4. Select **Use registrar**.
5. In the **Default Domain** field, enter the default domain name as defined in the SIP proxy server.
6. Click the **Settings** tab and then click **Advanced**.
7. Make sure that the **Register conference ID** check box is selected.

Note The LifeSize Multipoint must use the registrar to register conference IDs. Conferences cannot be found if the registrar has no record that they exist, causing all calls to conferences to fail.

Configuring the LifeSize Multipoint to Perform as a Separate SIP Domain

You can configure the LifeSize Multipoint to perform as a separate domain within the default domain. The default domain is the domain in which the LifeSize Multipoint operates as defined in the SIP proxy server. Every SIP request that the proxy receives that ends with the unique domain name of the LifeSize Multipoint unit routes directly to the LifeSize Multipoint. The LifeSize Multipoint then directs the call to the appropriate conference. Pre-registering the conference IDs with the registrar is not required.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Protocols** tab.
3. Make sure the **SIP** button is selected.

   The **SIP Protocol Configurations** dialog box appears.
4. In the **Default Domain** field, enter the name of the domain in which the LifeSize Multipoint unit operates.

   For example, *company.com*.
5. Configure the unique domain name of the LifeSize Multipoint unit in the proxy internal routing tables (if supported) or in the relevant DNS server:
   - For proxy internal routing tables, configure a rule such as:

     Every URI of type *(any number)@mcu.company.com should be routed to the LifeSize Multipoint unit IP address.
   - For a DNS server, define a new rule entry of mcu.company.com. The address of this entry is the LifeSize Multipoint unit IP.

Note Make sure that the LifeSize Multipoint unit domain configured in the proxy is different from the default domain. If the LifeSize Multipoint unit default domain is *company.com*, then configure the LifeSize Multipoint unit domain as *mcu.company.com*.

LifeSize Multipoint Services

A service can be regarded as a conference template. A service is the mechanism that defines the qualities and capabilities of a conference. A service is identified by its prefix. The service prefix number is incorporated into the conference ID to specify the service for the conference. A description of the service indicates the main attributes of the service or the target use for the service.

Working with Services

This section describes how to create new services and how to configure your own services settings.

- Creating a New Service on page 51
- Deleting a Service on page 52
- Customizing Services on page 52

Creating a New Service

You create a new service from the **Services** tab. The new service will have default settings which are suitable for most conferences and usually no further configuration is needed.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab.
3. Click **Add**.

   The **Automatic Service Definition** dialog box appears.
4. In the **Service prefix** field, enter a prefix for the service.

Note The service prefix is used as part of the dialing plan of your enterprise. Ensure that the prefix does not conflict with other prefixes used in your network.

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5. In the **Service description** field, enter a description of the service in free text.
6. Select one of the following options from the **Service type** field:
   - Audio Only—Forces the conference to be audio-only.
   - Desktop Video—Supports transcoding at bandwidth rates of up to 384 Kbps.

- HD/SD Continuous Presence—Supports transcoding at bandwidth rates of up to 4096 Kbps. Supports high definition continuous presence. Supports image size of up to 720p. Default when adding a new service.
- HD Switched Video—Supports switched high definition video at rates of up to 4096 Kbps.

7. Click **Upload**.

DELETING A SERVICE

You delete a service from the **Services** tab.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab.
3. Click **Delete**.
4. Click **Yes** in the message that appears.

   The service is removed from the list of services.

CUSTOMIZING SERVICES

You customize a service by first creating a new default service and then configuring your own settings in the **Automatic Service Definition** dialog box.

- Configuring the Maximum Call Rate on page 53
- Configuring the Maximum Layout on page 54
- Configuring Advanced Video Settings for SD and HD Video on page 55
- Configuring Advanced Video Settings for HD Switched Video on page 58
- Configuring Advanced Audio Settings on page 60
- Configuring Data Collaboration Support on page 62
- Configuring Presentation View on page 62
- Configuring Encryption Support on page 64
- Configuring Advanced Management and Security on page 65

Configuring the Maximum Call Rate

You can configure the maximum call rate (bit rate) for audio and video. This is the maximum bit rate available for this service. This value represents the total bit rate of the voice, video and data streams combined, up to a maximum of 2 Mbps per call.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab.
3. Click **Add**.

   The **Automatic Service Definition** dialog box appears.
4. In the **Max call rate** field, select the maximum call rate for the voice, video and data streams combined.
5. Click **Upload**.

Note A minimum call rate is defined automatically for each service; this minimum call rate can be changed by an advanced administrative command.

In the case of the high definition service, if a user joins a conference at a call rate that is below the defined minimum for the service, the LifeSize Multipoint will consider the call a standard definition call.

The maximum call rate is adjusted dynamically to the lowest maximum call rate of all the participants in a conference, as long as that rate is not below the minimum call rate.

CONFIGURING THE MAXIMUM LAYOUT

The **Max Layout** field indicates the video layout displaying the maximum number of participants to which the conference view expands.

The choice of layouts for the service depends on the type of processing mode. The default layout is 1+7 participants.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. In the **Max Layout** field, a picture of the current maximum layout appears. Click **Change** to choose a new layout.

Note The **Change** button is not active if **HD Switched Video** is the service type.

4. In the **Support image size up to** field, select the maximum incoming picture format supported in conferences using this service.

Note The **Support image size up to** field is not displayed if **Audio Only** or **HD Switched Video** is the service type.

For the **HD/SD Continuous Presence** service type, the maximum image size value must be 720p in order to support high definition. If 720p is not selected, high definition is not supported.

5. Click **OK**.

Configuring Advanced Video Settings for SD and HD Video

In the Advanced Video Settings dialog box you can configure advanced settings for standard definition and for high definition video.

- Configuring Standard and High Definition Advanced Video Settings
- Configuring Switched High Definition Advanced Video Settings

Configuring Standard and High Definition Advanced Video Settings

In the Advanced Video Settings dialog box you can configure the video codec, video image size, participant layout options, theme and additional layouts for a particular service.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab.
3. Click **Add**.

   The **Automatic Service Definition** dialog box appears.
4. Click **Advanced Video Settings**.

   The **Advanced Video Settings** dialog box appears.
5. The **Video Codecs** section displays the choice of codecs that you prefer. The codecs are listed in declining order of preference with the most preferred codec listed first. Setting the codec priorities notifies the LifeSize Multipoint and remote endpoints of your preferred video codecs. This is useful when more than one codec is supported by both sides. To select or change the codec priorities, follow these steps:
   - To add a codec to the **Available** field, click it in the **Selected** field and then click **Add**. To remove a codec from the **Available** field, click it and then click **Remove**.
   - To move a codec up the priority list, click it and then click **Up**. To move a codec down the priority list, click it and then click **Down**.
6. In the **Main (Participant) Layout** section select the layout options you wish to define for this service.
7. To display a welcome screen to user when that user connects to a conference, select **Display welcome screen**. For information on

modifying the welcome screen, see Configuring Welcome Screen Settings on page 59.

8. To configure automatic switching, select **Enable auto switch** and enter the interval in seconds. Auto switching allows participant images in the video layout periodically to change and display other conference participants according to the interval set.
9. Select **Dynamically change layout as participants join or leave** to dynamically enlarge or reduce the displayed number of subframes.
10. To configure removal of the self image, select **Enable 'No Self See'**.

Note The no self-see display is not available for high definition participants, even if the no self-see option is enabled.

11. Select an option from the **Display participants names** field to show a participant's name at the bottom of each sub-frame.
12. Select **Slightly reduce image size for optimal TV display** to change the display from PC screen mode to TV screen mode.
13. From the **Themes to use** field, select a theme. **Basic** is the default.
14. (Optional) In the **Additional Layouts** section, select **Enable custom layouts** to define custom layouts to maintain backward compatibility with previous product versions.
15. (Optional) Click **Settings** to define the layout options in the **Custom Layout Settings** dialog box.

Note If you select **Support presentation view (H.239)**, one of the customized layouts must be **Presentation layout**.

Related Topics

- Configuring Welcome Screen Settings on page 59
- Configuring 3G Layout Settings
- Configuring Presentation View on page 62
- Configuring Custom Layouts on page 63

Configuring Switched High Definition Advanced Video Settings

In the Advanced Video Settings dialog box you can configure the video codec, video image size, participant layout options, theme and additional layouts for a particular service.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab.
3. Select **High Definition Switched Video** in the **Service type** field.
4. Click **Add**.

   The **Automatic Service Definition** dialog box appears.
5. Click **Advanced Video Settings**.

   The **High Definition Service** dialog box appears.

   The maximum call rate set in the **Max call rate** field of the **Automatic Service Definition** dialog box is displayed.
6. Set a value in the **Allow call rate drop down to** option.

   This option enables you to configure the minimum bandwidth to which the LifeSize Multipoint lowers a conference to enable additional endpoints to join. This form of "downspeeding" contributes to a higher percentage of call completion on the network. Endpoints are prevented from joining a conference at a bandwidth rate below the value set in this option.

   After downspeeding occurs, the LifeSize Multipoint automatically raises the conference bandwidth rate when the endpoints participating at the lowest bandwidth rate leave the conference. For example, in a conference of endpoints communicating at 768 Kbps and a value of 512 Kbps configured in the **Allow call rate drop to** option, the LifeSize Multipoint lowers the conference to 512 Kbps when an endpoint attempts to join the conference at 512 Kbps. If that endpoint later disconnects from the conference, leaving two endpoints capable of communicating at 768 Kbps, the LifeSize Multipoint automatically increases the bandwidth of the conference back to 768 Kbps.

7 Select a codec from the **Codec** field.

Note H.264 must be a selected codec when the maximum layout definition is 720p.

8 To configure removal of the self image, select **Enable 'No Self See'**.

9 Click **OK**.

Configuring Advanced Video Settings for HD Switched Video

In the Switched High Definition Service dialog box you can configure advanced settings for high definition switched video.

Procedure

1 In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).

2 Click the **Services** tab.

3 Click **Add**.

The **Automatic Service Definition** dialog box appears.

4 Select **HD Switched Video** from the Service Type field.

5 Click **Advanced Video Settings**.

The Switched High Definition Service dialog box appears.

6 Select the required drop-down call rate, codec, image size and frame rate in the relevant fields.

Note The no self-see display is not available for high definition participants, even if the no self-see option is enabled.

7. (Optional) Select **Enable auto-switch every *n* seconds** and enter the required interval.
8. (Optional) Select **Enable lecturer mode** to enable all participants to see the lecturer in full screen, while the conference lecturer sees all the other conference participants in the selected layout while speaking.
9. Click **OK**.

CONFIGURING WELCOME SCREEN SETTINGS

In the Main (participant) layout section of the **Advanced Video Settings** dialog box you can modify the appearance of the welcome screen.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab. Select the service you wish to configure and click **Add**.
3. Click **Advanced Video Settings**.
4. Select **Display welcome screen** and click **Settings**.
5. In the Welcome screen settings window, enter a welcome text and the length of time you want the welcome screen to appear.
6. (Optional) Enter the string $CONF_DESCRIPTION to display the conference description in the welcome screen.

   You define the conference description in the Conference Control web user interface at Create Conference > Conference Description.

   If you do not define a conference description, the $CONF_DESCRIPTION string displays the conference ID by default.
7. (Optional) Enter the string $CONF_ID to display the conference ID in the welcome screen.
8. Click **OK**.

Configuring 3G Layout Settings

In the **Additional Layouts** section of the **Advanced Video Settings** dialog box you can configure the layout options for 3G videophone users.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Video Settings**.

   An **Advanced Video Settings** dialog box appears.
4. In the **Additional Layouts** section, select **Enable 3G videophone layout** to limit the layout for 3G videophone users.
5. Click **Settings** to select the layout in the **3G Layout Settings** dialog box.
6. Click **OK** to return to the **Automatic Service Definition** dialog box.

Configuring Advanced Audio Settings

Transcoding between audio protocols enables the LifeSize Multipoint to support communication between endpoints with different audio codecs. You configure service audio transcoding in the **Audio Settings** dialog box.

For a service, you can configure conference audio codec support and transcoding priorities. The LifeSize Multipoint supports the following audio codecs:

- G.711 A/μ law—Toll quality at 64 Kbps (A-Law/mu-Law).
- G.722—High-quality audio at 64 Kbps.
- G.722.1—High quality audio at 24 Kbps or 32 Kbps using a digital sampling rate ranging from 50 Hz up to 7 kHz.
- G.723.1—Voice quality audio at 5.3 Kbps or 6.4 Kbps.
- G.728—Near toll quality audio at 16 Kbps.
- G.729—Audio at 8 Kbps.
- AAC-LC

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Audio Settings** to modify audio settings.

   The **Audio Settings** dialog box appears.
4. The **Audio codec settings** section displays the choice of codecs that you prefer for audio transcoding. The codecs are listed in declining order of preference with the most preferred codec listed first. Setting these priorities notifies the LifeSize Multipoint and remote endpoints of your preferred audio codecs. This is useful when more than one codec is supported by both sides. To change these priorities, follow these steps:
   - To add a codec to the **Available** field, click it in the **Selected** field and then click **Add**. To remove a codec from the **Available** field, click it and then click **Remove**.
   - To move a codec up the priority list, click it and then click **Up**. To move a codec down the priority list, click it and then click **Down**.
5. If you select the AAC codec for use with a video service or a 96 Kbps audio service, the **Use AAC codec for call rates equal or above** option is enabled. Select the required bandwidth from the drop-down list.
6. In the **Audio packet size** field, enter the minimum audio packet size.
7. In the **Number of speakers to mix concurrently** field, enter the maximum number of speakers in a conference who can be heard at the same time. The value you enter is the number of loudest speakers for whom the audio stream is mixed and sent to all conference participants. For example, if you enter **4**, the LifeSize Multipoint mixes the audio stream of the four loudest speakers in the conference.
8. In the **Speaking duration to become 'Active Speaker'** field, enter the interval (in milliseconds) before the voice-activated video-switching mechanism displays a new active speaker in the video image. The default setting is 3000 milliseconds.
9. Select **Automatically mute participants who join the conference** to have the LifeSize Multipoint initially mute all participants joining the

conference. Once the conference begins, the conference Moderator can unmute selected participants. This is useful for lectures.

10 If you performed step 9, you can select **Do not mute first conference participant** to have the LifeSize Multipoint mute all conference participants except the participant that joined the conference first.

11 Click **OK**.

Configuring Data Collaboration Support

In the **Data Collaboration** section of the **Automatic Services Definition** dialog box you can configure the service to support T.120 data collaboration when the LifeSize Multipoint works with a T.120 server.

Procedure

1 In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).

2 Click the **Services** tab. Select the service you wish to configure and click **Add**.

The **Automatic Service Definition** dialog box appears.

3 Select **Support T.120 data conferencing**.

4 If you performed step 3, you can select **Allow access to data conferencing from Multipoint conference control**.

5 Click **Upload**.

Configuring Presentation View

In the **Data Collaboration** section of the **Automatic Services Definition** dialog box you can configure the service to support presentation view (H.239).

Procedure

1 In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).

2 Click the **Services** tab. Select the service you wish to configure and click **Add**.

The **Automatic Service Definition** dialog box appears.

3 Check **Support presentation view (H.239)** and click **Settings**.

The **Presentation View Settings** dialog box appears.

4 Choose **H.263** or **H.264** from the **Presentation Video Codec** field.

5 In the **Presentation Image Size** field, choose the required image size. The default for H.263 is XGA. The default for H.264 is CIF.

6 In the **Presentation Frame Rate** field, choose the required frame rate. The default for H.263 is 5 fps. The default for H.264 is 30 fps.

7 Click **OK**.

CONFIGURING CUSTOM LAYOUTS

In the **Additional Layouts** section of the **Automatic Services Definition** dialog box you can configure the service to support a custom layout. This custom layout should be used to show different layouts to a selection of the participants in the conference, as in “Lecture Mode” for example.

Procedure

1 In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).

2 Click the **Services** tab. Select the service you wish to configure and click **Add**.

The **Automatic Service Definition** dialog box appears.

3 Click **Advanced Video Settings**.

The **Advanced Video Settings** dialog box appears.

4 In the **Additional Layouts** section, select **Enable custom layouts** to define custom layouts to maintain backward compatibility with previous product versions.

5 Click **Settings** to define the layout options in the **Custom Layout Settings** dialog box.

6 Change one of the **Layout Role** fields from **None** to **Custom layout**.

7 Configure the required layout in the **Custom Layout Settings** dialog box.

8 Click **OK** to return to the Advanced Video Settings dialog box.

9 Click **OK** to return to the Automatic Service Definition dialog box.

10 Click **Upload** to save your changes.

Configuring Encryption Support

The LifeSize Multipoint supports encrypted calls over IP networks. You can configure the service to be encrypted and the type of encryption required.

About H.235 Encryption for H.323 Calls

The encryption conforms to the H.235 standard and supports the following encryption algorithms:

- DES: with an encryption key of 56 bits
- AES: with an encryption key of 128 bits

Encryption on the LifeSize Multipoint can operate in one of the following modes:

- **Disabled**—No encryption. The supported capability for this mode is Priority 1: no encryption.
- **Best effort**—This mode implements a “best effort” encryption algorithm. If an endpoint supports encryption, it connects in an encrypted way. If not, it connects without encryption. The supported capabilities for this mode are:
  - Priority 1: AES 128
  - Priority 2: DES 56
  - Priority 3: No encryption
- **Encryption required**—This mode only connects encrypted calls. Encryption is either AES 128 or DES 56. Non-encrypted calls are not allowed to connect. The supported capabilities for this mode are:
  - Priority 1: AES 128
  - Priority 2: DES 56
- **Strong encryption required**—This mode only allows AES 128 encrypted calls. Endpoints that do not support AES 128 are not allowed to connect. The supported capability for this mode is Priority 1: AES 128.

The following channels support encryption:

- Audio channel
- Video channel
- Far End Camera Control (FECC)

Note All channels (audio, video, FECC, incoming, and outgoing) on the same call must have the same encryption levels. If the encryption on all channels cannot be achieved, the call disconnects.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click the **Services** tab. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. In the **Management and Security** section, select **Support encryption** to enable encryption.
4. From the **Encryption mode** field, select the type of encryption:
   - Best effort
   - Encryption required
   - Strong encryption required
5. Click **Upload**.

Configuring Advanced Management and Security

In the **Advanced Management and Security** interface, you can configure policies for PIN settings, auto-reconnect and auto-redial, audio indications and invite authorizations, port reservations and limits, and Far End Camera Control (FECC).

- Configuring PIN Settings
- Configuring Service Dial-out Policies
- Configuring Service Indication Settings for IVR Messaging
- Configuring Port Reservations and Limits
- Configuring Support for Far End Camera Control

Configuring PIN Settings

In the **PIN Settings** tab you can define a policy for the use of PINs for accessing a conference.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.

3. Click **Advanced Management and Security**.

   The **Management and Security** interface appears.
4. Click **PIN Settings**.
5. Select **Force conference PIN protection** if you want user to enter a PIN when creating or entering a conference using this service.
6. Select **Do not to ask for conference PIN when dialing-out to invitees** if you want only dial-in participants to enter the conference PIN.
7. Click **OK**.

Configuring Service Dial-out Policies

In the **Dial-out** tab of the **Management and Security** interface, for a service, you can define policies for invitation rights and auto reconnect and auto redial.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Management and Security**.

   The **Management and Security** interface appears.
4. Click **Dial-out**.
5. In the **Invitation rights** section, select one of the options to define whether anyone can invite or only the Moderator can invite participants to the conference:
   - Select **Anyone can invite...** if you want any user to be able to invite participants into the conference.
   - Select **Only the moderator can invite...** if you only want users with Moderator-level access to invite participants into the conference.
6. In the **Re-dial and reconnect** section, to define redial and reconnect policies follow these steps:
   - Select **Automatically redial invited participants...** for the LifeSize Multipoint to redial endpoints that fail to respond to conference invites.

- In the **Number of redial attempts** field, enter the number of redial attempts.
- In the **Delay between retries (seconds)** field, enter a number representing the number of seconds between each redial attempt.

- Select **Automatically reconnect participants...** for the LifeSize Multipoint to automatically call disconnected terminals to attempt a reconnection. The LifeSize Multipoint attempts reconnection three times.

7. Click **OK**.

Configuring Service Indication Settings for IVR Messaging

In the **Indications** tab of the **Management and Security** interface, for a service, you can configure audio indications played to conference participants.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Management and Security**.

   The **Management and Security** interface appears.
4. Click **Indications**.
5. Select **First participant entry** if you want a message played to the first participant entering a conference, informing the participant that they are the first one to enter.
6. Select **Participant entry** if you want an audio indication played when any additional participant enters a conference.
7. Select **Participant exit** if you want an audio indication played when any participant exits a conference.
8. Select **Conference termination** if you want an audio indication played when a conference ends.
9. Click **OK**.

Configuring Port Reservations and Limits

In the **Port Reservation & Limits** tab of the **Management and Security** interface, for a service, you can configure the number of ports to reserve when a conference starts.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Management and Security**.

   The **Management and Security** interface appears.
4. On the Port Reservation & Limits tab, make sure the **High Definition is mandatory** check box is unchecked (it is unchecked by default). If it is checked, the number of ports guaranteed is a set value (16) that is displayed in the **Number of ports guaranteed (reserved) when a conference starts** check box.

Note The **High Definition is mandatory** check box only appears when a HD/SD Continuous Presence service type is selected and the picture resolution is configured to 720p.

---

5. Select **Number of ports guaranteed (reserved) when a conference starts**. Enter the number of ports to reserve. The minimum value allowed is one port.

Note Enter a number no larger than the maximum number of ports the platform can support.

---

6. Select **Allow conference to grow over guaranteed value** if you want to allow the conference to grow dynamically beyond the number of ports you have defined in the **Number of ports guaranteed (reserved) when a conference starts** check box.
7. Click **OK**.

Configuring Support for Far End Camera Control

In the **FECC** tab of the **Management and Security** interface, for a service, you can configure Far End Camera Control (FECC) data for managing the camera of endpoints at other locations.

FECC is not available for audio-only services.

Procedure

1. In the Administrator interface, on the sidebar, click **Multipoint** (if not already selected).
2. Click **Services**. Select the service you wish to configure and click **Add**.

   The **Automatic Service Definition** dialog box appears.
3. Click **Advanced Management and Security**.

   The **Management and Security** interface appears.
4. Click **FECC**.
5. Select the check box to enable FECC support.
6. Click **OK**.

Viewing the Event Log

The **Event Log** tab displays a list of reported alarm events. These events are configured in the **Alert Indications** section of the **Settings** tab.

The **Event Log** tab displays the following information:

- **Event ID**—Displays the identifier for the specified alarm event.
- **Type**—Displays the type of event.
- **Time**—Displays the date and time when the reported event occurred.
- **Severity**—Displays the severity of the reported event.
- **Message**—Displays the error message used to report the event

Saving Configuration Settings

You can save LifeSize Multipoint unit configuration settings to a file and then export this file to a storage device on your network. You can use the saved configuration file to restore the settings to the current LifeSize Multipoint unit or to configure a similar LifeSize Multipoint unit.

An exported configuration file saves most of the current **Device** section settings and all of the current LifeSize Multipoint section settings.

You must use the **Export** button on the toolbar to save the configuration settings to a file. The **Export** button appears only when LifeSize Multipoint section settings are activated. When you save a configuration file, the current **Device**

section settings are saved in the file. If you want to change these settings for export, click **Upload** on the toolbar to save these settings to configuration memory prior to saving the configuration file.

Procedure

1. In the **Multipoint** interface, on the sidebar, click **Device**.
2. Make sure that the settings in the **Basics**, **Addressing**, **Web** and **Users** tabs are correct.

Note Date parameters are not saved to the configuration file.

3. Click **Upload** to save these settings.
4. On the sidebar, click **Multipoint**.
5. Review each of the configuration pages to ensure that these are the configuration settings you want to save.
6. Click **Upload** to save these settings.
7. On the toolbar, click **Export**.

Note A dialog box appears indicating that you are navigating away from the page without saving the changes. Select the option to continue.

The **File Download** dialog box appears.

8. Save the configuration settings file to your chosen location. The file extension *.ini* is automatically appended to the file name.

IMPORTING CONFIGURATION SETTINGS

You can import the settings of a saved LifeSize Multipoint unit configuration file from a storage device on your network. You can use the saved configuration file to restore the settings to the current LifeSize Multipoint unit or to configure another LifeSize Multipoint unit.

Procedure

1. In the **Multipoint** interface, on the sidebar, click **Multipoint**.
2. On the toolbar, click **Import**.
   The **Import a Configuration File** page appears.
3. Click **Browse**.
   The **Choose file** dialog box appears.
4. Navigate to and select the configuration file you want to import.

Note The file must have an *.ini* extension.

5. Click **Open**.
   The file path appears in the **File Name** field.
6. Click **Import**.

Note You can verify the settings by clicking **Multipoint** or **Device** on the sidebar. However, to save the settings in either section, you must click **Upload** to save them before viewing the next section.

7. Click **Upload** to save the settings in configuration memory.

Note Uploading the file resets the device.

2

USING THE LIFESIZE MULTIPOINT

This section describes how to create, join and manage video conferences on the LifeSize Multipoint including the following topics:

- About Using the LifeSize Multipoint
- Making an Ad Hoc Conference Call
- Controlling Conferences with DTMF
- Accessing the Conference Control Interface
- LifeSize Multipoint Access Levels
- Conference List Window
- Conference Control Interface
- Working with the Control Conference Interface
- Controlling Conference Settings
- Configuring Participant Settings
- Viewing Conference Statistics
- Using Advanced Invitation Settings
- Cascading Conferences
- Defining Conference Views
- Terminating Conferences
- Signing Out of a Conference

About Using the LifeSize Multipoint

You can participate in video conferences hosted on the LifeSize Multipoint from any phone, terminal, or endpoint on any type of network to which the LifeSize Multipoint connects. The LifeSize Multipoint can accept calls from H.323 and Session Initiation Protocol (SIP) endpoints, and with gateway support, from phones and terminals on H.320 and PSTN networks in the same conference.

You can participate in a conference by dialing from a phone, from an endpoint application, or by using the LifeSize Multipoint **Conference Control** interface.

With appropriate access rights, you can also create conferences, invite other participants and conferences, and use an extensive range of conference control features for enhancing the video conferencing experience.

The Auto Attendant feature allows you to access the video IVR simply by dialing the IP address of the LifeSize Multipoint from your endpoint.

When the LifeSize Multipoint works with a gatekeeper, you can configure a leading number in the LifeSize Multipoint web interface at Settings > Auto Attendant > Auto attendant number. Dialing this number allows direct access to the video IVR.

Making an Ad Hoc Conference Call

All users can create or join an ad hoc (also called dial-in) conference simply by dialing the conference number. Users can invite single or multiple participants in the same operation.

Users can initiate multi-point conferences that run unattended and do not require advance configuration. Users simply dial a number and the LifeSize Multipoint automatically sets up the conference. Anyone else who dials that number can join the conference at any time, provided that network resources are available. All that the user requires is a suitable service number—that an Administrator supplies—to combine with a unique number for the conference. A common practice is to use the telephone extension number of the conference creator as the unique number.

Related Topics

- LifeSize Multipoint Dialing Conventions for H.323 Endpoints
- Dialing Conventions for SIP Endpoints
- Using Dialing Conventions with any IP-based Endpoint

LifeSize Multipoint Dialing Conventions for H.323 Endpoints

This section describes the dialing conventions relating to H.323 endpoints, including the following topics:

- Starting or Joining an Ad Hoc Conference with H.323 Endpoints
- Inviting Multiple H.323 Endpoints with a Single Dial String

Starting or Joining an Ad Hoc Conference with H.323 Endpoints

To start or join an ad hoc conference with H.323 endpoints, you dial in using the conference ID number. The conference ID number is composed of a service prefix number that indicates the conference call type and capabilities and a unique number (or numbers) identifying the conference:

```
<Service prefix> + <Unique number>
```

A conference ID can consist of any combination of the characters 1-9, *, and #. It can be up to 256 characters in length.

For example, you can dial:

601234

where:

- **60** is the service prefix.
- **1234** is the unique conference number.

As soon as the LifeSize Multipoint accepts the call, you are connected to the existing conference, or the LifeSize Multipoint creates a new conference with this conference identifier.

Note The LifeSize Multipoint comes with two predefined services for audio and video conferencing. The predefined services are factory tuned to be suitable in most cases for audio and video calls. We recommend starting with these services and modifying them as necessary to suit your needs.

Inviting Multiple H.323 Endpoints with a Single Dial String

With an H.323 endpoint, you can create or join an ad hoc conference and invite single or multiple participants in the same operation using the invite sign (**). You use the invite sign to separate the called numbers in the dialed string:

```
<conference ID number> + <**> + <invited participant number>
```

For example, you can dial:

601234**5678

where:

- **601234** is the conference ID number.
- ** is the invite sign.
- **5678** is the invited participant number.

Note You can invite multiple participants in one action by using the invite sign to separate each individual participant number. For more information, see Configuring Delimiter Settings on page 33

Dialing Conventions for SIP Endpoints

You can dial to the LifeSize Multipoint from SIP endpoints. You can also invite SIP endpoints to ad hoc conferences on the LifeSize Multipoint when each is registered with a SIP proxy server on the IP network. This section includes the following topics:

- Starting or Joining Ad Hoc Conferences with SIP Endpoints
- Inviting Multiple SIP Endpoints with a Single Dial String
- Dialing into the LifeSize Multipoint Configured as a SIP-compliant Endpoint
- Dialing into the LifeSize Multipoint Configured as a Separate SIP Domain

Starting or Joining Ad Hoc Conferences with SIP Endpoints

When starting or joining an ad hoc conference, the dialed string should contain the conference ID number and the LifeSize Multipoint domain name:

```
<conference ID number> @ <mcu.domain.com>
```

For example, you can dial:

601234@mcu.domain name

where:

- **601234** is the conference ID number.
- **@mcu.domain.com** is the name that the DNS server resolves to a unique IP address.

Inviting Multiple SIP Endpoints with a Single Dial String

You can dial from a SIP endpoint and invite an H.323 or SIP endpoint when the inviting SIP endpoint is registered in the LifeSize Multipoint domain. The LifeSize Multipoint adds the default domain to the dialed string when a user name is dialed without a domain:

```
<conference ID number> + <**> + <invited SIP endpoint>
```

For example, you can dial:

601234john@mcu.domain.com**

where:

- **601234** is the conference ID number.
- ** is the invite sign.
- **john@mcu.domain**.com is the invited participant and domain.

Dialing into the LifeSize Multipoint Configured as a SIP-compliant Endpoint

Administrators can configure the LifeSize Multipoint unit as a SIP-complaint endpoint. Users can start or join an ad hoc conference by dialing into this LifeSize Multipoint unit from their SIP endpoint. This procedure assumes that the SIP Proxy responsible for the network is capable of routing calls according to the dialed prefix. Check with your SIP Proxy vendor for compliance.

Procedure

1. Dial a conference on the LifeSize Multipoint unit from a SIP endpoint by dialing the conference ID.
2. Add the default domain to the dial string.

   For example, dial:

   601234@default.domain

   where:

   - **602134** is the LifeSize Multipoint conference ID (service prefix + unique conference identifier).
   - **default.domain** is the default domain of the LifeSize Multipoint unit on which the conference is hosted.

Dialing into the LifeSize Multipoint Configured as a Separate SIP Domain

Administrators can configure the LifeSize Multipoint unit as a separate SIP domain. Users can start or join an ad hoc conference by dialing into this LifeSize Multipoint unit from a SIP-complaint endpoint.

Procedure

1. Dial the conference ID.
2. Add the unique LifeSize Multipoint domain as defined in the proxy or Domain Name Server (DNS) server to the dial string.

   For example, dial:

   conference.id@mcu.domain.com

Using Dialing Conventions with any IP-based Endpoint

You can start or join an ad hoc conference from any IP-based endpoint. When dialing from an IP endpoint, configure the dialing software, IP phone, or other device with the appropriate network configuration details (H.323 gatekeeper IP address or SIP proxy IP).

Procedure

To start or join a conference with an IP endpoint, choose one of the following steps:

1. To start or join a conference, dial the conference ID number.

   For example, dial **601234**.

   As soon as the LifeSize Multipoint unit accepts the call, you connect to the existing conference or the LifeSize Multipoint unit creates a new conference with this conference identifier.

   –or–
2. To start or join a conference and invite a participant, dial the conference ID number followed by the invite sign (**) and the number of the participant you want to invite.

   For example, dial **601234**5678**

   As soon as the LifeSize Multipoint unit accepts the call, you connect to the existing conference or the LifeSize Multipoint unit creates a new conference with this conference identifier.

   –or–
3. To start or join a conference and invite a participant on the Integrated Services Digital Network (ISDN), Public Switched Telephone Network (PSTN) or cell phone network, dial the conference ID number followed

by the invite sign (**), the appropriate gateway service prefix, and the ISDN line number.

For example, dial **601234**867655001** (<Conference ID number> + <**> + <Gateway service prefix + line number>).

As soon as the LifeSize Multipoint unit accepts the call, you are connected to the existing conference or a new conference is created with this conference identifier.

CONTROLLING CONFERENCES WITH DTMF

You can control LifeSize Multipoint conferences using Dual Tone Multi-Frequency (DTMF) signals from your endpoint remote control or key pad.

Depending on how you set the DTMF forwarding advanced command, the LifeSize Multipoint passes out-of-band DTMF signals to all endpoints in the conference, to gateways only or does not pass DTMF signals.

The gateway inserts in-band signals on receiving the DTMF from the LifeSize Multipoint. The audio bridge receives these in-band signals and responds accordingly.

Table 2-1 shows available DTMF control signals.

Table 2-1 *DTMF Controls*

During a conference press * followed by:	
*	Listen to available options.
1	Become Moderator/stop moderating.
2	Mute/unmute your line.
3	Control your volume.
6	Change the video layout for the conference.
7	Block/unblock admission to conference (for Moderator-level users only).
8	Invite a new participant (for Moderator-level users only).

Table 2-1 DTMF Controls (continued)

During a conference press * followed by:	
9	Mute/unmute all participants (for Moderator-level users only).
#	Return to the conference.

ACCESSING THE CONFERENCE CONTROL INTERFACE

All users can access the **Conference Control** interface.

Procedure

1. Launch your browser and enter the IP address of the LifeSize Multipoint unit.

   The LifeSize Multipoint access window appears.
2. Perform one of the following actions:
   - To monitor a conference, follow these steps:
     - In the **Conference ID** field, enter the number of the conference you want to monitor.
     - In the **Password** field, enter the PIN for the conference you want to monitor.
     - Click **Go**.
   - To create a new conference, click **Create conference**.
   - To sign in with Operator or Administrator authorization click **Sign in**.

Related Topics

- Conference Control Interface on page 86

LifeSize Multipoint Access Levels

There are four ways to interact with the LifeSize Multipoint user interfaces according to the following access levels:

- Administrator
- Operator
- Moderator
- User

Table 2-2 describes each access level.

Table 2-2 *LifeSize Multipoint Access Levels*

Access Level	Privileges
Administrator	■ Full access to the LifeSize Multipoint Administrator interface. ■ Full Operator-level access to the **Conference Control** interface.
Operator	■ Access to the **Conference Control** interface using the **Create Conference** window. ■ Access to view details of all conferences hosted on the LifeSize Multipoint and to cascaded conferences hosted on participating LifeSize Multipoint units. ■ Ability to create a new conference from the **Conference Control** access window, the **Create Conference** window, or the **Conference Control** interface. ■ Moderator-level access to all conferences while moderator controls are simultaneously held by other users. ■ Ability to invite other participants to a conference.
Moderator	■ Access to view conference details of conferences hosted on the LifeSize Multipoint and to cascaded conferences hosted on participating LifeSize Multipoint units for which access authorization is granted. ■ Moderator-level access to conferences when the user has a valid Moderator PIN or no other user is a Moderator ■ Ability to invite other participants to a conference.

Table 2-2 LifeSize Multipoint Access Levels (continued)

Access Level	Privileges
User	■ View-only access to conferences hosted on the LifeSize Multipoint for which authorization is granted. ■ Ability to invite other participants to a conference.

CONFERENCE LIST WINDOW

All users can access the **Conference List** window where they can join an existing conference or create a new conference. Administrator or Operator-level users can use the **Conference List** window to select conferences to monitor and control from the list of conferences currently running, or create a new conference.

The number of currently-running conferences appears in the **Number of Conferences** field. The **Conference List** window displays information about each conference in a table format with the following columns:

- **Conference ID**—Conference ID number. Each ID number is a hyperlink that you can select to display the **Conference Control** interface for that conference.
- **Description**—Description of the conference entered by the user who created it.
- **Participants**—The number of participants currently attending the conference.
- **Media Types**—Icons indicate the type of media supported by the conference: voice, video and data.
- **Encryption**—Indicates the level of encryption currently in use for the conference: best effort, encryption required, or strong encryption required.
- **Actions**—Indicates the actions that can be taken.

Creating Conferences from the Create Conference Window

Users with Moderator-level access or Administrators can create a conference using available predefined services in the **Create Conference** window. Such users can also optionally set a PIN for accessing the new conference and a Moderator PIN for moderation of the new conference.

Figure 2-1 and Figure 2-1 list the elements in the **Create Conference** window.

Figure 2-1 *Create Conference Window Elements*

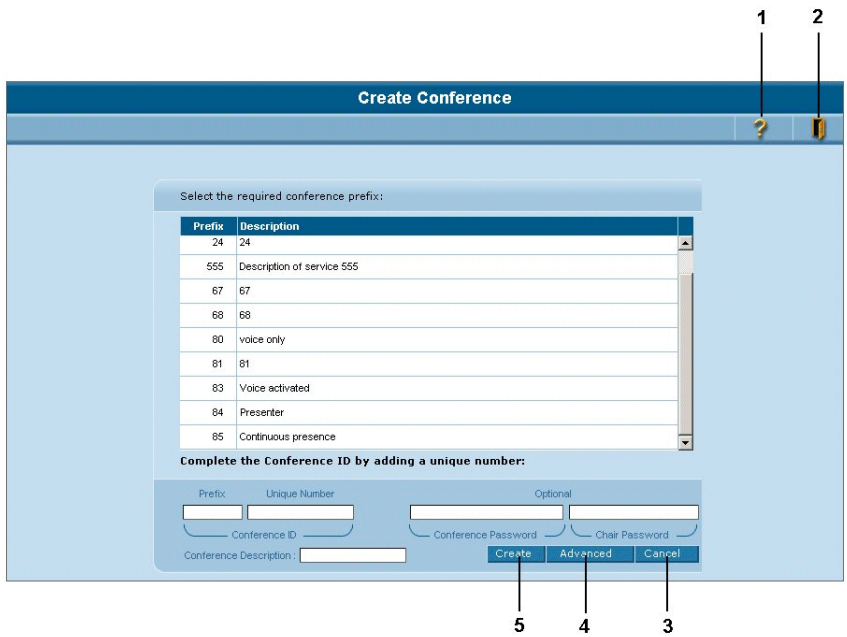

Table 2-3 *Create Conference Window Elements*

Number	Description
1	**Help** button
2	**Sign out** button
3	**Cancel** button
4	**Advanced** button

Table 2-3 *Create Conference Window Elements (continued)*

Number	Description
5	**Create** button

Before You Begin

Have an Administrator configure LifeSize Multipoint services if there are not already existing ones.

Procedure

1. Launch your browser and enter the IP address of the LifeSize Multipoint unit.

   The LifeSize Multipoint access window appears.
2. Click **Create conference**.

   The **Create Conference** window appears, displaying available pre-configured service prefixes and their descriptions.
3. Choose a service prefix from the list of pre-configured ones.

   The prefix appears in the **Prefix** field.
4. In the **Unique Number** field, enter a number for this conference.

Note You cannot use an existing conference number.

5. (Optional) In the **Conference Password** field, enter a PIN used for accessing the conference.
6. (Optional) In the **Moderator Password** field, enter a PIN used for moderating the new conference.

Note You can also configure a default Moderator PIN for a service profile in the Administrator interface.

7. (Optional) In the **Conference Description** field, you can enter text describing the conference that appears in the **Create Conference** window.
8. (Optional) You can configure additional settings for a new conference such as conference duration, time-out, and dialing policy settings:
   - Click **Advanced**.

     The **Advanced Features** dialog box appears.
   - (Optional) In the **Conference Duration** section, click **Unlimited** or **Min** and set time limitation (in minutes) for the conference.
   - (Optional) Select **Terminate Conference when empty** to end a conference after it is vacant for the number of minutes you enter in the field in this setting.
   - (Optional) Select **Disallow dial-in to the conference** to prevent participants dialing in to the conference. Attendance is thus by invitation only. This ensures that users dialing the wrong number do not join this conference by mistake.
   - Click **OK**.
9. Click **Create**.

Note If an error appears, stating that no resources are available, check whether the LifeSize Multipoint or the appropriate MVP is registered or online in the **Media Processing** tab in the Administrator interface.

TERMINATING CONFERENCES

You can disconnect an inactive or unused conference in the **Create Conference** window.

Procedure

1. Access the **Create Conference** window.
2. Click **Terminate Conference** (11 in Figure 2-4 on page 87) next to the conference name to end the conference.

Signing Out of the Create Conference Window

You can exit the **Create Conference** window by clicking the **Sign out** button.

Procedure

1. Access the **Create Conference** window.
2. On the control bar, click **Sign out**.

Conference Control Interface

From the LifeSize Multipoint **Conference Control** interface, you can:

- View active conferences hosted on the LifeSize Multipoint or on cascaded LifeSize Multipoint units.
- View conference participant details.
- Create conferences.
- Control conference connections.
- Monitor and manage conference behavior.

While all users can view the **Conference Control** interface, access to conference management features is controlled by authorization access levels: Administrator, Operator, Moderator and User.

Figure 2-2 shows the Conference Control interface.

Figure 2-3 on page 87 to Figure 2-6 on page 89 show the elements of the Conference Control interface in more detail.

Table 2-4 on page 90 lists these elements in numerical order of the labels in Figure 2-3 to Figure 2-6.

Table 2-5 on page 95 lists these elements in alphabetical order.

Figure 2-2 *Conference Control Interface Elements*

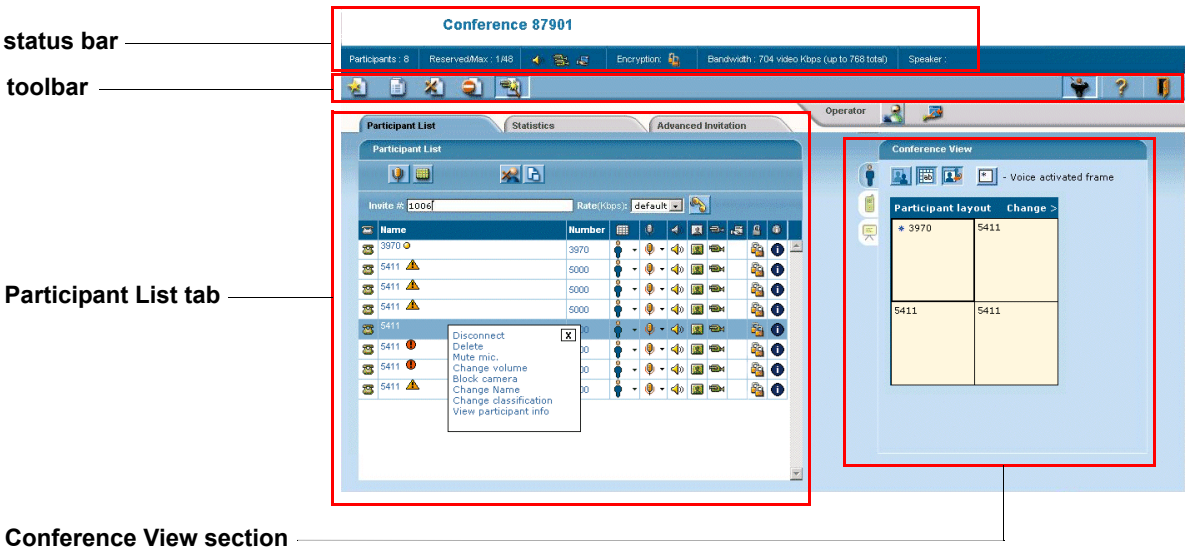

Figure 2-3 *Conference Control Status Bar*

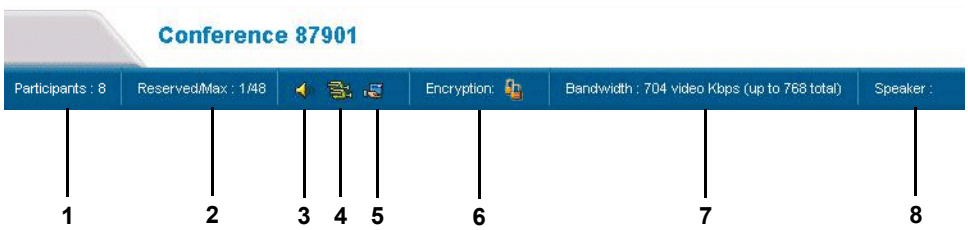

Figure 2-4 *Conference Control Toolbar*

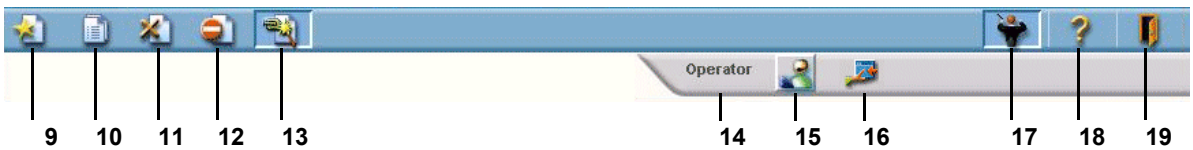

Figure 2-5 *Conference Control Participant List Tab*

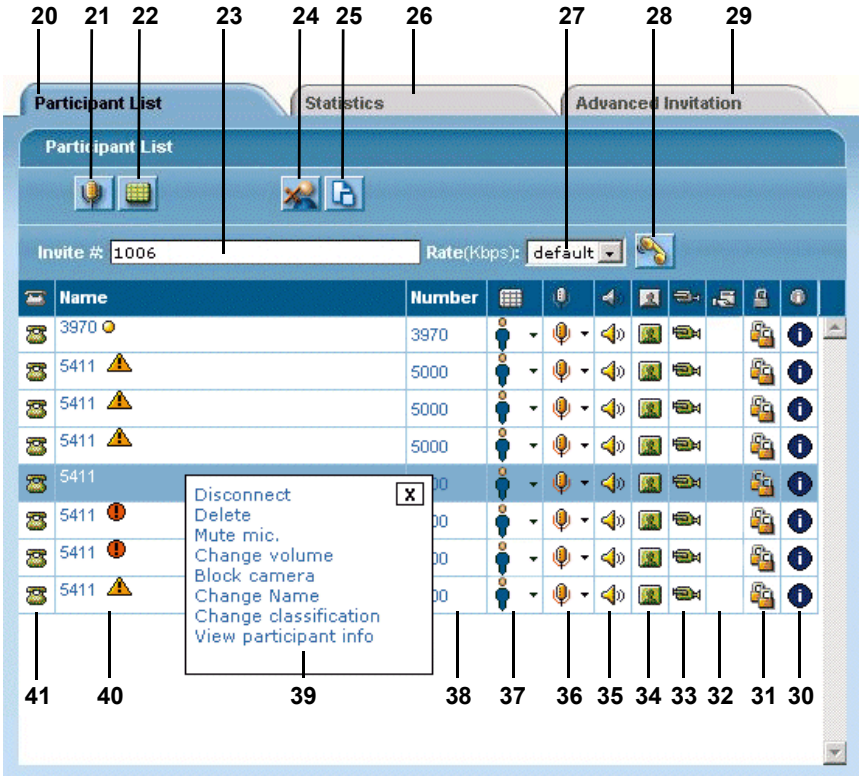

Figure 2-6 *Conference Control Conference View*

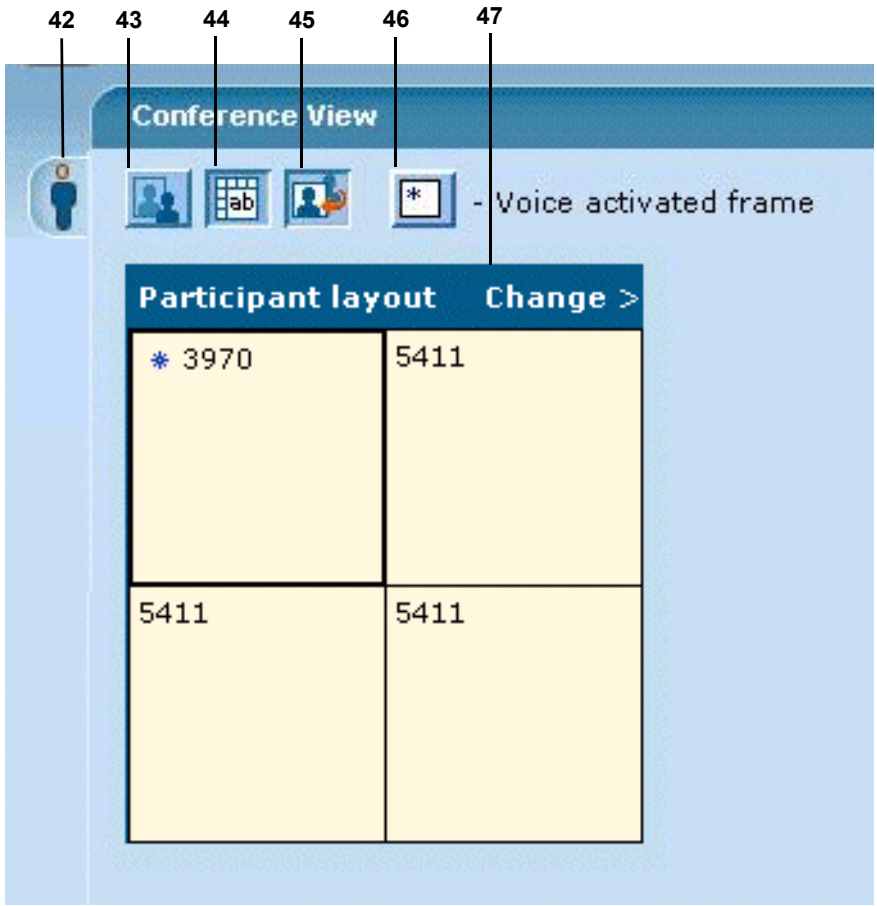

Table 2-4 Conference Control Interface Elements by Number

Numbered Label	Description
Status Bar	
1	**Participants** field. Displays number of participants in the current conference.
2	**Reserved/Max** field. Displays the reserved number of participants and maximum number of participants for this conference.
3	Media type icon indicating that this conference supports voice. An error symbol appears if a media processing error occurs in the LifeSize Multipoint.
4	Media type icon indicating that this conference supports video. An error symbol appears if a media processing error occurs in the LifeSize Multipoint.
5	Media type icon indicating that this conference supports T.120 data sharing.
6	**Encryption** field. Displays the level of encryption for this conference: best effort, encryption required or strong encryption required.
7	**Bandwidth** field. Displays the bandwidth the current conference is using.
8	**Speaker** field. Displays the participant currently speaking in the conference.
Toolbar	
9	**Create Conference** button.
10	**View Conference List** button. Click to view the Create Conference window. See Conference List Window on page 82 for more information.
11	**Terminate Conference** button.

Table 2-4 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
12	**Conference Admission** button.
13	**Enable/Disable QualiVision** button. Click to enable or disable the LifeSize QualiVision feature for improved video quality.
14	**Operator** tab. Click the icon in the tab to invite the operator to join the conference to answer queries and provide support. The operator E.164 number is pre-configured by the network administrator under Settings > Basics > Operator.
15	**Operator** button.
16	**Join data conference** (**Data Sharing**) button.
17	**Become Moderator /Stop Moderating** button.
18	**Help** button.
19	**Sign out** button.
Participant List Tab	
20	**Participant List** tab.
21	**Mute/Unmute** button.
22	**Change Participant View** button.
23	**Invite #** field. Enter the number of the participant you wish to invite to the conference. You can invite multiple participants at the same time by separating each number with the invite sign (**). The invite sign is configurable. For more information, see Using Quick Invites to Invite Conference Participants on page 115.
24	**Delete Participant** button.
25	**Move participants to sub-conference** button. Click to view the Select sub-conference dialog box. See Configuring Sub-Conferences on page 108 for more information.

Table 2-4 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
26	**Statistics** tab.
27	**Rate(Kbps)** field.
28	**Invite** button. Click to invite the number entered in the Invite # field (23).
29	**Advanced Invitation** tab.
30	**Participant info** column. Click the icon
31	**Encryption** column. Displays the level of encryption that the endpoints require: best effort, encryption required, or strong encryption required.
32	**T.120 data sharing** column. Indicates that the participant supports T.120 data sharing.
33	**Video Image** column. ■ Displays video image icons that indicate whether the video stream from the participant to the LifeSize Multipoint is enabled or blocked. If the video image icon has a star, then QualiVision is enabled for the video stream from the participant to the LifeSize Multipoint. ■ Displays video quality warning icons—medium or poor video quality—that indicate the current quality of the IP network video connection for the participant.

Table 2-4 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
34	**Video Display** column. ■ Displays video display icons that indicate whether the conference video display sent to the participants is enabled or blocked. If the video display icon has a star, then QualiVision is enabled for the video stream from the LifeSize Multipoint to the participant. ■ Displays video quality warning icons—medium or poor video quality—that indicate the current quality of the IP network video connection for the participant. ■ Different icons used to indicate standard definition and high definition participants.
35	**Audio Out** column. Displays Audio Out icons that indicate whether the conference audio connections to the participants are enabled or muted.
36	**Audio In** column. ■ Displays Mute icons for participants whose audio is not muted and Unmute icons for participants whose audio is muted. ■ These icons are clickable by Moderator to mute/unmute audio channel of remote speakers of a participant. ■ Icon indicates the active speaker.
37	**Location in View** column. Indicates the conference view displayed to the participants. **Note** High definition participants see only the participant layout.
38	**Number** column. Displays the endpoint numbers of the conference participants.
39	Actions pop-up
40	**Name** column. Displays the names of the endpoint.

Table 2-4 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
41	Participant connection status icons: Connected, Disconnecting or Disconnected.
Conference View	
42	Layout display frame.
43	**Enable self-see** button. Click to enable the self-see feature.
44	**Display participants name in frame** button. Click to display the name of endpoints or participants in specific positions of the video layout frame.
45	**Auto-switch** button. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis.
46	**Voice activated frame** button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.
47	**Change** button. Select to display a list of layouts available in the current conference. Select the required layout. The conference view layout adjusts according to your selection. For more information, see Changing Conference Layouts on page 121.

Table 2-5 Conference Control Interface Elements by Name

Description	Numbered Label
Actions pop-up.	39
Advanced Invitation tab.	29
Audio In column. Displays Mute icons for participants whose audio is not muted and Unmute icons for participants whose audio is muted. Indicates active speaker.	36
Audio Out column. Displays Audio Out icons that indicate whether the conference audio connection to the participants are enabled or muted.	35
Auto-switch button. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis.	45
Bandwidth field. Displays the bandwidth the current conference is using.	7
Change button. Select to display a list of layouts available in the current conference. Select the required layout. The conference view layout adjusts according to your selection. For more information, see Changing Conference Layouts on page 121.	47
Change Participant View button.	22
Conference Admission button.	12
Create Conference button.	9
Delete Participant button.	24
Display participants name in frame button. Click to display the name of endpoints or participants in specific positions of the video layout frame.	44
Enable self-see button. Click to enable the self-see feature.	43

Table 2-5 Conference Control Interface Elements by Name (continued)

Description	Numbered Label
Encryption column. Displays the level of encryption that the endpoints require: best effort, encryption required or strong encryption required.	31
Encryption field. Displays the level of encryption for this conference: best effort, encryption required or strong encryption required.	6
Help button.	18
Invite button. Click to invite the number entered in the **Invite #** field.	28
Invite # field.Enter the number of the participant you wish to invite to the conference. You can invite multiple participants at the same time by separating each number with the invite sign (**). The invite sign is configurable. For more information, see Using Quick Invites to Invite Conference Participants on page 115.	23
Join data conference (**Data Sharing**) button.	16
Layout display frame.	42
Location in View column. Indicates the conference view displayed to the participants.	37
Media type icon indicating that this conference supports video.	4
Media type icon indicating that this conference supports voice.	3
Mute/Unmute button.	21
Name column. Displays the names of the endpoint.	40
Number column. Displays the endpoint numbers of the conference participants.	38

Table 2-5 Conference Control Interface Elements by Name (continued)

Description	Numbered Label
Operator button. Select the icon to invite the operator to join the conference to answer queries and provide support. The operator number is pre-configured by the network administrator.	14, 15
Participant connection status icons: Connected, Disconnecting or Disconnected.	41
Participants field. Displays number of participants in the current conference.	1
QualiVision button. Click to enable or disable the LifeSize QualiVision feature for improved video quality.	13
Rate(Kbps) field.	27
Reserved/Max field. Displays the reserved number of participants and maximum number of participants for this conference.	2
Sign out button.	19
Speaker field. Displays the participant currently speaking in the conference.	8
Statistics tab.	26
Move participants to sub-conference button. Click to view the Select sub-conference dialog box. See Configuring Sub-Conferences on page 108 for more information.	25
T.120 data sharing column. Indicates that the participant supports T.120 data sharing.	32
T.120 data sharing icon. Indicates that the conference supports T.120 data sharing.	5
Take Control/Release Control button.	17
Terminate Conference button.	11

Table 2-5 Conference Control Interface Elements by Name (continued)

Description	Numbered Label
Voice activated frame button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.	46
Video Display column. Displays Video Display icons that indicate whether the conference video display sent to the participants is enabled or blocked. If the Video Display icon has a star, then QualiVision is enabled for the video stream from the LifeSize Multipoint to the participant.	34
Video Image column. Displays Video Image icons that indicate whether the video stream from the participant to the LifeSize Multipoint is enabled or blocked. If the Video Image icon has a star, then QualiVision is enabled for the video stream from the participant to the LifeSize Multipoint.	33
View Conference List button. Click to view the Create Conference window. See Conference List Window on page 82 for more information.	10
Voice activated frame button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.	46

Working with the Control Conference Interface

The following sections describe the tasks that users with appropriate access levels can perform in the Conference Control interface:

- Accessing the Conference Control Interface on page 99
- Refreshing the Conference Control Interface on page 100
- Viewing Online Help from the Conference Control Interface on page 100
- Controlling Conference Settings on page 101

Accessing the Conference Control Interface

You can access the Conference Control interface from any Java-enabled web browser.

Procedure

1. Access the LifeSize Multipoint interface.
2. Click **Enter a conference**.

   The LifeSize Multipoint Conference Control access window appears.
3. Choose one of the following two methods.
   - To access an existing conference:
     - In the Conference ID field, enter the conference ID.
     - In the Password field, enter the PIN, if applicable.
     - Click **Go**.

   –or–

   - To create a new conference:
     - Click Create Conference (button 9 in Figure 2-4 on page 87).
     - Choose a service prefix from the list of pre-configured services.
     - In the Unique Number field, enter a unique number for the conference.

Note You cannot use a number already in use by another conference.

     - Click **Create**.

Refreshing the Conference Control Interface

By default, the Conference Control interface refreshes itself every 10 seconds to provide updated information. To refresh information instantly, click the tab in the interface that you are viewing. You can configure the refresh interval by using the Conference control Web refresh interval advanced command. For more information, see Sending Advanced Commands on page 34.

Note Do not click Refresh in your web browser. This closes the Conference Control interface and returns you to the access window.

For Microsoft Windows systems, if you have enabled the Start Navigation sound, and a continuous clicking sound is heard when the Conference Control interface automatically refreshes, disable this setting in the Sounds and Multimedia section of the Control Panel.

Viewing Online Help from the Conference Control Interface

You can view help information for a selected tab in the Conference Control interface.

Procedure

1. In the Conference Control interface, click the tab you want to view help information for:
   - **Participant List** (tab 20 in Figure 2-5 on page 88)
   - **Statistics** (Moderators only—tab 26 in Figure 2-5 on page 88)
   - **Advanced Invitation** (tab 29 in Figure 2-5 on page 88).
2. Click **Help** (button 18 in Figure 2-4 on page 87).

Controlling Conference Settings

With Moderator-level access, for conferences already in progress, you can control conference activity and initiate events such as inviting participants. When you are a Moderator, you can edit participant connections, create new conferences, and audio sub-conferences, and change video layout and the position of participant images. You can block conference admission, block audio and video streams, and terminate the conference. You can split the existing conference and transfer some participants to the new conference. Moderator-level access also provides additional viewing and configuration options in the Conference Control interface.

The following sections describe the tasks that users with appropriate access levels can perform to control conference activities in the Conference Control interface:

- Becoming a Moderator and Stopping Moderation on page 101
- Creating Conferences from the Conference Control Interface on page 102
- Inviting an Operator to a Conference on page 102
- Configuring T.120 Data Collaboration on page 102

Becoming a Moderator and Stopping Moderation

Moderator access can be PIN-protected. Administrators and Operators can jointly be Moderators simultaneously.

Procedure

1. In the Conference Control interface, click **Become Moderator** (button 17 in Figure 2-4 on page 87) to take control of that conference.
2. A dialog box requesting a PIN might appear if Moderator access is PIN-protected. Enter the PIN.
3. To release control of the conference, click **Stop Moderation** (button 17 in Figure 2-4 on page 87).

Creating Conferences from the Conference Control Interface

Moderators, Operators, and Administrators can create a new conference from the **Conference Control** interface.

Procedure

1. In the Conference Control interface, click **Create Conference** (button 9 in Figure 2-4 on page 87).
2. Follow the steps in Creating Conferences from the Create Conference Window on page 83.

Inviting an Operator to a Conference

Users with Moderator-level access can invite an Operator to join a conference to answer questions and provide support. An Administrator pre-configures the Operator number.

Note If an Operator is not pre-configured by an Administrator, the call to the Operator does not connect.

Procedure

1. Access the Conference Control interface.
2. Click **Operator** (button 14 in Figure 2-4 on page 87).

   The Operator appears in the Participant List.

Configuring T.120 Data Collaboration

Users with Moderator-level access can set up a T.120 data conference in the Conference Control interface.

Procedure

1. Access the Conference Control interface.
2. Click **Join Data Conference** (button 16 in Figure 2-4 on page 87).

CONFIGURING PARTICIPANT SETTINGS

The Participant List tab in the Conference Control interface contains the following sections:

- Participant List section, which displays information about conference participants. Users with Moderator-level access can view and edit media connections for each participant. Table 2-6 describes the information that appears in the Participants List section.
- Conference Views section, which displays information about the conference layout and view.

Table 2-6 on page 103 lists the elements that appear in the Participants List section. The number after each element refers to the corresponding label in Figure 2-2 on page 87.

Table 2-6 *Participants List Section Columns*

Numbered Label	Column	Description
41	Status	Displays status icons for the connection status of each conference participant. ■ Disconnected participants remain in the Participant List for the duration of the conference, enabling you to reconnect participants without sending repeat invitations. ■ You can rearrange the list of participants in the Participant List by clicking the icon in the title of this column. ■ Icon indicates that the LifeSize Multipoint invited the specified participant.
40	Name	The name of the conference participant.
38	Number	The participant's endpoint number.
37	Change Participant View	Indicates the conference view that appears to the participant. When the conference is configured with more than one view, you can choose available views from a list.

Table 2-6 Participants List Section Columns (continued)

Numbered Label	Column	Description
36	Audio In	■ Indicates whether the voice of the selected participant is muted or enabled. ■ The current speaker indication icon that indicates that the specified participant is currently the active speaker.
35	Audio Out	Indicates whether the conference audio connection is muted or enabled.
34	Video Display	Indicates whether the conference video display sent to the participant is blocked or unblocked. If the icon contains a star, then QualiVision is enabled for the video stream from the LifeSize Multipoint to the participant.
33	Video Image	Indicates whether the video stream that the participant is sending to the conference is blocked or unblocked.
32	Data Sharing	Indicates that the participant supports T.120 data sharing.

The following sections describe the tasks that users with appropriate access level can perform in the Participant List tab:

- Muting and Unmuting Participant Audio Connections on page 105
- Reconnecting Participants on page 106
- Blocking Conference Admission on page 106
- Deleting Conference Participants on page 106
- Changing the Volume on page 107
- Changing Participant Views on page 107
- Configuring Sub-Conferences on page 108
- Blocking the Video Stream on page 109
- Changing a Participant Name on page 110
- Changing Video Quality Classification on page 110
- Viewing Participant Call Information on page 110
- Configuring Outgoing Bandwidth Settings on page 114

Muting and Unmuting Participant Audio Connections

In the Participant List tab, users with Moderator-level access can mute or enable the audio connection to the conference of all participants in the conference.

Procedure

1. On the control bar, click **Mute** (button 21 in Figure 2-5 on page 88) to mute all participants or **Unmute** (21) to enable the audio connection for all participants.

Users with Moderator-level access can also mute or enable the audio connection of an individual participant in a conference.

Procedure

1. In the Participants List section, select a participant.
2. Right click and select **Mute mic** from the pop-up (pop-up 39 in Figure 2-5 on page 88).

Muting or Enabling Remote Speakers

Users with Moderator-level access can mute or enable the remote speakers for the conference.

Procedure

1. In the Participants List section, select a participant.
2. Right click and select Mute speaker from the pop-up (pop-up 39 in Figure 2-5 on page 120).

Reconnecting Participants

If participants are disconnected from a conference, users with Moderator-level access can reconnect them in the Participant List tab.

Note When the Enable auto-reconnect option is configured in the conference service, then the LifeSize Multipoint automatically calls disconnected terminals to attempt a reconnection.

Procedure

1. Access the Participant List tab.
2. Click **Disconnect** (button 41 in Figure 2-5 on page 88) icon to attempt a reconnection.

Blocking Conference Admission

Users with Moderator-level access can block the admission of additional participants in a conference in the Conference Control interface.

Procedure

1. Access the control bar.
2. Click **Conference Admission** (button 12 in Figure 2-4 on page 87).

   No further participants can join the conference. To readmit participants, click **Conference Admission** again.

Deleting Conference Participants

In the Participant List tab, users with Moderator-level access can remove participants from conferences.

Procedure

1. In the Participants List section, click the participant you want to remove.
2. On the control bar, click **Delete Participant** (24 in Figure 2-5 on page 88).

   –or–

3 In the Participants List section, select a participant.

4 Right click and select **View participant info** from the pop-up (pop-up 39 in Figure 2-5 on page 88).

CHANGING THE VOLUME

In the Conference Control interface, users with Moderator-level access can control the volume of participating endpoints (manual gain control) in a conference. For a regular conference, your setting only affects the location that is connected to a specific LifeSize Multipoint port. In a cascaded conference, changing this setting affects all remote participants on other LifeSize Multipoint units. Once you change this setting, the new setting remains in effect until that endpoint leaves the LifeSize Multipoint.

Procedure

1 In the Participant List tab, select the participant whose volume you want to change.

2 Right click and select **Change volume** from the pop-up (pop-up 39 in Figure 2-5 on page 88).

3 The gain control scroll bar dialog box appears, with a gain span of -5 to +5.

4 Drag the scroll bar to the right to increase the gain; drag the slide bar to the left to decrease the gain.

5 Close the gain control slide bar dialog box.

CHANGING PARTICIPANT VIEWS

In the **Participant List** tab, if a conference supports multiple views, users with Moderator-level access can change the conference view layout for an individual conference participant or all conference participants while the conference is in progress.

Note Multiple view are not available to high definition participants. High definition participants can only see the main participant layout.

Procedure

1. If you wish to change the conference view for specific conference participants only, select those participant(s) in the Participant List table.
2. Click **Change Participants View** (button 21 in Figure 2-5 on page 88).
3. Select **Selected Participants** to change the conference view layout for the conference participants you selected in 1,

   –or–

   Select **All** to change the conference view layout for all conference participants.
4. Click **OK**.

CONFIGURING SUB-CONFERENCES

In the Participant List tab, users with Moderator-level access can create a sub-conference within a conference. The LifeSize Multipoint supports audio sub-conferences to which the Moderator can divert selected participants in the existing conference to a private audio sub-conference session. The connection to the main conference remains active.

Note The LifeSize Multipoint can support up to three sub-conferences per conference according to the service configuration.

The LifeSize Multipoint hides sub-conference session participants from the other participants in the video layout. They can return to the conference at any time and reoccupy any previously held positions in the main conference video display. While in a sub-conference, participants can continue viewing and hearing the main conference.

Note This option is available only when a conference is configured to support sub-conferences

Procedure

1. In the Participant List tab, select the required participant.
2. Right click and select **Move to sub-conference** from the pop-up (pop-up 39 in Figure 2-5 on page 88).

   The Select sub-conference dialog box appears.
3. From the list, select the required sub-conference.
4. Click **OK**.

   A new Sub-conf column appears in the Participant List with a list of all available sub-conferences for that participant.
5. In the Sub-conf column, select a sub-conference for that participant.
6. To return the participant to the main conference, in the Sub-conf list, select **Main**.

   When all participants return to the main conference and none remain in the sub-conference, the **Sub-conf** column disappears from the Participant List.

BLOCKING THE VIDEO STREAM

In the **Participant List** tab, users with Moderator-level access can block the video stream sent by a participant to a conference. For example, a participant video connection might affect conference processing and degrade performance. You can block the participant's video until problems at the participant's endpoint are resolved.

Procedure

1. In the Participant List tab, select the participant that you want to block.
2. Right click and select **Block camera** from the pop-up (pop-up 39 in Figure 2-5 on page 88)

   –or–

   Click **Video Image** (icon 33 in Figure 2-5 on page 88).

Changing a Participant Name

In the Participant List tab, users with Moderator-level access can change the name of conference participants.

Procedure

1. In the Participant List tab, select the participant whose name you want to change.
2. Right click and select **Change Name** from the pop-up (pop-up 39 in Figure 2-5 on page 88).
3. In the Change name field, enter the new name.
4. Click **OK**.

Changing Video Quality Classification

In the **Participant List** tab, users with Moderator-level access can change the video quality classification associated with a conference participant.

Procedure

1. In the Participant List tab, select the required participant.
2. Right click and select **Change classification** from the pop-up see pop-up (39 in Figure 2-5 on page 88).

   The Video Quality Classification dialog box appears.
3. In the Change to class field, select the new video quality classification.
4. Click **OK**.

Viewing Participant Call Information

Users with Moderator-level access, can view a comprehensive set of participant call statistical information.

Procedure

1. In the Participant List tab, select the required participant.
2. Right click and select **View participant info** from the pop-up see pop-up (39 in Figure 2-5 on page 88).

   –or–

3 Click the information icon in the Participants List section for the selected participant.

The Call Information dialog box for the specified participant appears.

Table 2-7 lists the statistics displayed.

Table 2-7 *Participant Information Statistics*

Group	Field	Description
Endpoint Information	Type	Participant endpoint type.
	IP address	Participant endpoint IP address.
	Description	Participant description (displays the endpoint vendor identifier, if available).
	Connect time	Time at which the participant connected to the conference.
Basic Call Information		
Audio	Audio Codec	Audio codecs sent to and received by the participant.
	Audio rate	Total audio bandwidth sent and received by the participant.
	Audio Packets loss count	Total lost audio packets sent to and received by the participant.
	Audio Jitter (curr/min/max)	Accumulated audio packets sent to and received from the participant. Includes the current value and average values for the minimum and maximum number of packets sent to and received from the participant.

Table 2-7 *Participant Information Statistics (continued)*

Group	Field	Description
Video	Video codec	Video codecs sent to and received by the participant.
	Video resolution	Picture size of video sent and received by the participant.
	Video frame rate	Frame rate of video sent to and received by the participant.
	Video rate	Total video bandwidth sent and received by the participant.
	Video packets loss count	Total lost video packets sent to and received by the participant.
	Video jitter (curr/min/max)	Accumulated video packets sent to and received from the participant. Includes the current value and average values for the minimum and maximum number of packets sent to and received from the participant.
	2nd video codec	The second video codec sent to and received by the participant (if used).
Data	Data protocol	Indicates whether the protocol used if the participant is participating in data sharing.

Table 2-7 *Participant Information Statistics (continued)*

Group	Field	Description
Advanced Call Information		
Audio	Audio out of order packets count	Total audio packets sent to and received from the participant out of sequence.
	Audio packets count	Total audio packets sent and received by the participant.
	Audio bytes count	Total audio bytes sent and received by the participant.
	Audio IP address	IP address and port to which audio is sent to the participant.
Video	Video out of order packets count	Total video packets sent to and received from the participant out of sequence.
	Video fast update requests count	Total Video Fast Update (VFU) requests sent and received by the participant.
	Video packets count	Total video packets sent and received by the participant.
	Video bytes count	Total video packets sent and received by the participant.
	Video IP address	IP address and port to which video is sent to the participant.
	Qualivision state	Encryption level used.
Data	Data IP address (Local/Remote)	IP address of the participant data sharing terminal.
	FECC	Indicates whether Far End Camera Control is in use.

Configuring Outgoing Bandwidth Settings

Users with Moderator-level access can also configure the bandwidth rate at which they invite other participants to the conference.

Procedure

1. In the Participant List tab
   - Enter the name of the participant being invited in the Invite field.
   - Select the required bandwidth in the Rate(Kbps) field (field 27 in Figure 2-5 on page 88).
   - Click **Invite** (button 28 in Figure 2-5 on page 88).

   –or–
2. In the Advanced Invitation tab,
   - Enter the name of the participant being invited in the Invite field.
   - Select the required bandwidth in the Kbps field.
   - Click **Invite**.

Viewing Conference Statistics

Users with Moderator-level access, can view a comprehensive set of statistical information in the Statistics tab. Statistics frequently update automatically and enable you to monitor conference performance.

Procedure

1. In the Participants List section, click **Statistics** (26 in Figure 2-5 on page 88) to view conference statistics.
2. Click **Update** to refresh the information displayed.

Using Advanced Invitation Settings

The following sections describe the tasks that users with appropriate access level can perform in the Advanced Invitation tab:

- Using Quick Invites to Invite Conference Participants on page 115
- Inviting Participants Using Advanced Settings on page 115

Using Quick Invites to Invite Conference Participants

In the Participant List tab of the Conference Control interface, all users can use the quick invite feature to send an invitation to participate in a conference.

Procedure

1. In the Invite # field, enter the participant number you want to invite. You can invite multiple participants by separating them with the invite sign (**).
2. (Optional) You can select a bandwidth rate lower than the current conference rate at which the invited participant joins the conference. You can thus invite individual participants with lower connection capabilities. In the Rate(kbps) field, choose a new bandwidth rate.
3. Click **Invite** (button 28 in Figure 2-5 on page 88).

Related Topics

- Inviting Participants Using Advanced Settings on page 115

Inviting Participants Using Advanced Settings

All users can invite multiple participants into a conference at the same time in the Advanced Invitation tab of the Conference Control interface. As each invite field can accommodate multiple participant numbers with separators, you can use this tab to invite a large number of participants at the same time. All users can also select a lower bandwidth rate with which to connect individual participants.

In the Advanced Invitation tab, all users can also drag and drop participant images into preferred positions in the layout of each conference view that the conference supports. All users can also set the layout which invited participants see when joining a conference.

In a cascaded conference, all users can choose which LifeSize Multipoint unit actually invites the participant.

Procedure

1. In the Conference Control interface, click **Advanced Invitation** (tab 29 in Figure 2-5 on page 88).
2. In the first Invite # field, enter the participant contact numbers. You can enter multiple numbers separated by the invite sign (**).
3. In the Display Name field, enter the name you want to appear when the participant enters the conference.
4. In the Kbps field, choose the bit rate that the LifeSize Multipoint uses when inviting a participant to a conference. Choose **default** for optimal bit rate performance.
5. In the **Multipoint** field, choose a cascaded LifeSize Multipoint conference to which invited participants connect.

Note This step is only for cascaded conferences.

6. (Optional) To configure advanced features, follow these additional steps;

   Additional control features appear in the Advanced Invitation tab (tab 29 in Figure 2-5 on page 88).

   - In the Participant Layout area click **Change** (button 34 in Figure 2-5 on page 88).

     A dialog box appears displaying a list of the current layouts available in the current conference.
   - Drag and drop the **Voice activated frame** button (button 46 in Figure 2-6 on page 89) into the preferred position in the **Layout display frame** that appears in the Conference View section.

Note You can set a position for the participant image in all layouts that the conference currently supports.

- At the end of each participant row, choose from the list the number of the conference video layout you want to display to the participant upon entry into the conference. Choose **L** to display the local view of a slave conference.

  A slave conference on an -enabled LifeSize Multipoint has two views:

  - The local (slave LifeSize Multipoint conference) CP view
  - The view that the master LifeSize Multipoint broadcasts.

  An Operator of the slave conference should be able to switch the view for each participant in the slave conference so that the participant can see the view broadcast by the master or the local view. This feature is useful in large cascaded conferences where each site has a local operator. Most participants at the local site see the view broadcast by the master LifeSize Multipoint, but the local operator can see the local view of local participants.

  You can enable a local view of a slave conference in the Edit View dialog box.

7. Repeat step 1 to step 6 for each Invite # field until you configure all required the participant invites.
8. Click **Invite** (button 28 in Figure 2-5 on page 88) to send the invitations.

Related Topics

- Using Quick Invites to Invite Conference Participants on page 115

CASCADING CONFERENCES

Users with Moderator-level access can increase LifeSize Multipoint call capacity by cascading LifeSize Multipoint units. This option supports the bridging of several separate conferences to create very large conferences through IP connections (H.323 and SIP) and also through ISDN/PSTN connections (H.320) when operating in conjunction with a gateway.

In the Conference Control interface, cascading a conference works the same way as inviting a single participant into an existing conference. Once you create a cascaded conference, you can use the LifeSize Multipoint to set the conference to which invited participants are connected, providing precision control of resources. In a cascaded conference, you can view participants in a tree view that displays each participant according to the conference to which each is connected.

Note If a failure occurs in a cascaded conference, local LifeSize Multipoint users can see this status in the Create Conference window or Conference Control interface. This status, however, only appears if it was the local MVP or LifeSize Multipoint that was lost. If the MVP of a slave LifeSize Multipoint is lost, then the user of the master LifeSize Multipoint can view which participants are without audio/video in the Participant List tab. If the MVP of the master LifeSize Multipoint is lost, then slave LifeSize Multipoints do not receive any indication that there has been a failure.

Procedure

1. Access the Participant List tab.
2. Invite another conference on the host LifeSize Multipoint unit or on another LifeSize Multipoint unit by typing the number in the Invite # field and clicking **Dial**.

   The invited conference and connected participants appear in the host conference participant list in the Participant List tab.

Inviting Participants to a Cascaded Conference

All users can invite participants to a cascaded conference in the Advanced Invitation tab of the Conference Control interface.

Procedure

1. In the Conference Control interface, click **Advanced Invitation** (tab 29 in Figure 2-5 on page 88).
2. In the **Multipoint** column, choose the conference to which the invited participant connects upon acceptance of the conference invite.

Viewing Participants in a Cascaded Conference

In the Conference Control interface, you can view participants in a cascaded conference in a hierarchical display in one of the following two ways:

- **Normal View**—All conference participants appear in a single list. Cascaded participants appear without any indication of the cascaded LifeSize Multipoint connection.
- **Tree View**—Conference participants appear in an expandable tree view showing cascaded LifeSize Multipoint connections to the conference. Click the plus sign (+) next to the name of the cascaded LifeSize Multipoint unit to expand the tree showing cascaded conference participant details.

Procedure

1. Access the Participant List tab.
2. Click **Normal View** to display cascaded conference participants in a single list or **Tree View** to display conference participants in a tree view.

Defining Conference Views

The following sections describe the tasks that users with appropriate access level can perform in the Conference View section:

- Enabling or Disabling Dynamic Layouts on page 120
- Changing Conference Layouts on page 121
- Displaying Participant Names in Frames on page 121
- Enabling or Disabling Auto-Switch Mode on page 122

Enabling or Disabling Dynamic Layouts

Users with Moderator-level access can enable or disable dynamic layouts for a conference. A dynamic layout seamlessly switches the conference video image between a wide range of layouts to correspond with the number of participants in attendance at any given time during the conference. The video image switches to a layout with frames equal to the number of participant images, to a maximum of 16. The layout changes accordingly as participants join or leave a conference.

A dynamic layout conserves bandwidth, eliminates the display of empty frames in the video image, and makes optimum use of the video image for displaying participant images. This type of layout switching is suitable for a conference with a high rate of participant traffic joining and leaving the conference or an adaptive service used for a variety of conference sizes.

Procedure

1. Access the Conference View section of the Participant List tab.
2. Click **Change** (button 47 in Figure 2-5 on page 88).

   A pop-up appears, displaying a list of currently available layouts for the current conference.
3. Click **Dynamic Layout** to enable (if not selected) or disable (if already selected) dynamic layout for this conference.

Changing Conference Layouts

In the Conference View section, users with Moderator-level access can change the layout for the current conference.

Procedure

1. In the Conference View section of the Participant List tab, click **Change** (button 47 in Figure 2-5 on page 88).

   A pop-up appears, displaying a list of currently available layouts for the current conference.
2. Click the layout of your choice.

   The conference adjusts to the new selection.

Displaying Participant Names in Frames

In the **Conference View** section, users with Moderator-level access can choose to display the name of endpoints or participants in specific positions of the video layout frame.

Note This feature is visible when you configure text overlay in the service.

Procedure

1. Access the Conference View section of the Participant List tab.
2. Click **Display participant names in frame** (button 44 in Figure 2-6 on page 89).

Enabling or Disabling Auto-Switch Mode

In the Conference View section, users with Moderator-level access can enable the auto-switch mode for a conference. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis. Participant images can be replaced at preset intervals.

Procedure

1. Access the Conference View section of the Participant List tab.
2. Click **Auto-switch** (button 46 in Figure 2-6 on page 89) to enable (if not already selected) or disable (if already selected) auto-switch mode.

Terminating Conferences

In the Conference Control interface, users with Moderator-level access can terminate a conference, which ends that conference and disconnects the participants.

Procedure

1. Access the control bar.
2. Click **Terminate Conference** (button 11 in Figure 2-4 on page 87).

Signing Out of a Conference

When you finish configuring or viewing details of the current conference, you can sign out.

Procedure

1. Access the control bar.
2. Click **Sign out** (button 19 in Figure 2-4 on page 87).

3

TROUBLESHOOTING THE LIFESIZE MULTIPOINT

This section covers problems you might encounter when configuring, operating and managing the LifeSize Multipoint, and provides suggested actions you can perform to solve the problems.

This section describes the following topics:

- Resolving LifeSize Multipoint Failure to Register with the Gatekeeper
- Resolving LifeSize Multipoint Conference Initiation Failure
- Resolving Conference Access Failure
- Resolving Cascading Failure
- Resolving Quality Issues in Cascaded Conferences
- Resolving Endpoint Disconnection Issues
- Resolving Unexpected Conference Termination
- Resolving Presentation Issues
- Resolving Participant Connection Issues
- Resolving Unexpected SIP Call Disconnection
- Resolving Audio and Video Issues in SIP Calls
- Resolving Issues Sending CIF to High Definition Endpoints

Resolving LifeSize Multipoint Failure to Register with the Gatekeeper

This section describes what to do if the LifeSize Multipoint fails to register with the LifeSize Gatekeeper.

Possible Causes	Verification Steps
The gatekeeper address is set incorrectly.	Verify the gatekeeper IP address settings.
TCP/IP setup issue.	■ Verify that the LifeSize Multipoint is assigned a unique IP address. ■ Verify that the subnet mask and default gateway subnet mask are set correctly.
LAN or cable problem	■ Verify the switch port settings. ■ Verify that the Ethernet cable is straight through. ■ Try another Ethernet cable.
LifeSize Gatekeeper is in Predefined mode.	Verify that the LifeSize Multipoint is predefined in the LifeSize Gatekeeper.

Resolving LifeSize Multipoint Conference Initiation Failure

This section describes what to do if LifeSize Multipoint conference initiation fails.

Possible Causes	Verification Steps
In ad hoc conferences, the LifeSize Gatekeeper is set to reject all calls.	Verify that the Accept calls option is checked in Gatekeeper > Settings > Calls.
The LifeSize Multipoint is set to work with an external authorization server, but no authorization server is configured.	Verify that the External conference authorization policy option is set to None in in Multipoint > Settings > Advanced.
The LifeSize Multipoint is set to work with an external authorization server, but the authorization server is not configured properly to work with the LifeSize Multipoint.	Verify that the LifeSize Multipoint IP address is correctly configured in the authorization server.

Possible Causes	Verification Steps
In ad hoc conferences, the initiating LAN endpoint is not registered with the LifeSize Gatekeeper.	Verify that the initiating endpoint appears in the LifeSize Gatekeeper Endpoints table correctly.
In ad hoc conferences, the LifeSize Multipoint service is not defined in the LifeSize Gatekeeper Services table.	■ Verify that the service is defined in the LifeSize Multipoint. ■ Verify that the LifeSize Multipoint service prefix appears in the LifeSize Gatekeeper Services table. If it does not, add it manually. ■ Verify that the service prefix is not a subset of another service prefix.
The LifeSize Multipoint is set to prevent endpoints from creating conferences.	Verify that the Conferences can be created using option is set to Scheduler, Web, Control API and dial-in in Multipoint > Settings > Advanced.
There are not enough LifeSize Multipoint resources available for the desired conference.	■ Verify that the service you are using reserves the minimum number of parties (2). ■ Verify that current calls are not utilizing all resources by check the available LifeSize Multipoint capacity and then trying to disconnect other calls in order to find the problem.

Possible Causes	Verification Steps
The service requires one MVP video processor, but no MVP module appears to be registered with the LifeSize Multipoint.	■ Ping the MVP module. ■ Open a Telnet connection to the IP address of the required MVP module. ■ Open a serial connection to the MVP module if there is no response from the IP address. ■ Type the advanced command modifyTargetDevice to ensure that the MVP is configured to work with the correct LifeSize Multipoint. You can perform this operation using the serial connection via the countdown menu visible after rebooting the MVP. ■ Reboot the MVP after modifying the controlling LifeSize Multipoint.

Resolving Conference Access Failure

This section describes what to do if an endpoint cannot be invited to a conference or dial into the conference.

Possible Causes	Verification Steps
The LifeSize Gatekeeper is set to reject all calls.	Verify that the Accept calls option is checked in Gatekeeper > Settings > Calls.
The endpoint is not registered with the LifeSize Gatekeeper.	■ Verify that the invited/dialing endpoint appears in the LifeSize Gatekeeper table of registered endpoints. ■ Verify that the endpoint is online.
The LifeSize Multipoint is configured to work with an authorization server, but the endpoint is not authorized and therefore the authorization server rejects the call.	Check if the endpoint is authorized in the authorization server.

Possible Causes	Verification Steps
The endpoint is currently in a call.	Confirm that the endpoint is not busy/in a call.
There are not enough LifeSize Multipoint resources available for the desired conference.	Remove one of the current participants to verify that the endpoint can join successfully.

RESOLVING CASCADING FAILURE

This section describes what to do if LifeSize Multipoint conference cascading fails.

Possible Causes	Verification Steps
The invited conference does not exist, and the remote LifeSize Multipoint is not in Ad Hoc (Scheduler, Web, Control API and dial-in) mode.	■ Using the remote LifeSize Multipoint web interface, verify that the remote conference exists or that the Conferences can be created using option is set to Scheduler, Web, Control API and dial-in in Multipoint > Settings > Advanced. ■ If ad hoc conferencing is not allowed for the remote LifeSize Multipoint, and the remote conference does not exist, create the conference and then cascade it (web/dial invite).
Service prefixes are not unique and there is service prefix conflict.	Verify that all cascaded LifeSize Multipoint modules have unique service prefixes.
The remote LifeSize Multipoint module is not registered with its gatekeeper.	Verify proper registration of all LifeSize Multipoint modules with their respective gatekeepers.

Possible Causes	Verification Steps
Not enough ports are available to accomplish cascading. **Note** Cascading requires one port from each conference.	Check that the number of free ports on each MVP used is not zero.
Services are not synchronized.	Verify that service definitions do not include differences such as H.235 being enabled on one conference only.

Resolving Quality Issues in Cascaded Conferences

This section describes what to do if a cascaded conference suffers long delays or bad lip synchronization.

Possible Causes	Verification Steps
Unsuitable topology used (for example, chain topology used unnecessarily).	■ One single central LifeSize Multipoint should invite all other cascaded LifeSize Multipoints. ■ We recommend that you do not have more than one level of cascaded LifeSize Multipoints. ■ Use a star topology, where the central LifeSize Multipoint is in the center of the star, and other cascaded LifeSize Multipoint modules are on the arms of the star.

Resolving Endpoint Disconnection Issues

This section describes what to do if endpoints unexpectedly drop out of the LifeSize Multipoint conference.

Possible Causes	Verification Steps
Unreliable network link.	Check network link quality (round trip time should be less than 300 msec).

Resolving Unexpected Conference Termination

This section describes what to do if a conference on the LifeSize Multipoint unexpectedly terminates.

Possible Causes	Verification Steps
The LifeSize Multipoint unexpectedly drops out of the LifeSize Gatekeeper endpoints database.	■ Uncheck the Check that endpoint is online every n seconds option in Gatekeeper > Settings > Advanced. ■ Uncheck the Check that call is alive every n seconds option in Gatekeeper > Settings > Calls. ■ Uncheck the TTL option in Gatekeeper > Settings > Advanced.
The Ad hoc conferences terminate when option in Multipoint > Settings > Advanced is set to Conference creator leaves and the conference creator has left the conference.	Set the Ad hoc conferences terminate when option in Multipoint > Settings > Advanced to Last participant leaves.
Unreliable network link between the LifeSize Multipoint and the gatekeeper.	Check network link quality (round trip time should be less than 300 msec).

Resolving Presentation Issues

This section describes what to do if you cannot start or receive a presentation during a conference.

Possible Causes	Verification Steps
H.239 functionality is not enabled on your endpoint.	■ Verify that H.239 is enabled on the endpoint. ■ Make a point-to-point call to another endpoint and verify that you can start a presentation.
Presentation is not configured in the LifeSize Multipoint service used in your conference.	Configure the service to support presentation in Multipoint > Services.

Possible Causes	Verification Steps
LifeSize Multipoint presentation definitions in the service are not supported by your endpoint (frame rate, frame size, codec).	Check that your endpoint supports the frame size, frame rate and video codec as defined in the service.

Resolving Participant Connection Issues

This section describes what to do if you have difficulty connecting 96 participants in a conference even though there are enough MVP resources available.

Possible Causes	Verification Steps
The LifeSize Multipoint is configured to support DTMF detection during the call.	Disable DTMF detection via the advanced commands.

Resolving Unexpected SIP Call Disconnection

This section describes what to if a SIP call unexpectedly disconnects after 30 seconds.

Possible Causes	Verification Steps
DNS is not fully configured on the LifeSize Multipoint and user agents.	Verify that DNS is configured on user agent and LifeSize Multipoint.

Resolving Audio and Video Issues in SIP Calls

This section describes what to do if audio or video channels in SIP calls do not open.

Possible Causes	Verification Steps
The LifeSize Multipoint does not publish all its capabilities when inviting other participants.	Check the Use Empty Invite when sending invite s to endpoints option in Multipoint > Protocols > SIP > Advanced.

Resolving Issues Sending CIF to High Definition Endpoints

A high definition endpoint may not be able to receive CIF.

Possible Causes	Verification Steps
The Welcome Screen of the MCU is CIF.	Use the Advanced Command to disable the welcome screen.

4

USING THE LIFESIZE AUDIO MESSAGE UTILITY FOR IVR MESSAGING

This section describes the LifeSize Audio Message Utility, and includes the following topics:

- Introduction
- Launching the Audio Message Utility
- Playing a Message
- Recording a Message
- Replacing a Message
- Uploading a Message to a Device
- Viewing Message Details
- Exiting the Utility
- About Express Setup
- Using Express Setup

INTRODUCTION

The LifeSize Audio Message Utility is an interactive GUI that enables you to record and replace messages and upload new messages to the call routing mechanisms in LifeSize devices.

Default built-in messages are in English. The LifeSize Audio Message Utility allows you to record new messages in a different language or with different content to suit your requirements. The LifeSize Audio Message Utility also enables you to replace and upload new messages to the target LifeSize device.

There are two ways of using the LifeSize Audio Message Utility. The standard utility functions enable you to play, record or replace messages. The Express Setup guides you through the recording, replacing and upload procedure for each message.

Before You Begin

Before you can record, play and upload messages to the target LifeSize device, you must

- Save recorded messages as WAV files.
- Know the IP address of the target device.

LAUNCHING THE AUDIO MESSAGE UTILITY

This section describes how to install and launch the Audio Message Utility.

Procedure

1. Copy the Audio Message Utility folder from the LifeSize Utilities and Documentation CD-ROM to your local computer.

Note You cannot run the Audio Message Utility from the LifeSize Utilities and Documentation CD-ROM.

2. To run the utility, double-click the *IvrRecordingUtility.exe* file.

PLAYING A MESSAGE

This section describes how to play an audio message. Available messages depend upon the device selected in the **Target Type** field.

- LifeSize Multipoint Messages

Note The devices available in the **Target Type** drop-down list vary according to the LifeSize devices included in your installation.

Procedure

1. In the **Target Type** field, choose the device that uses the message you want to play.

   Note The options available in the **Target Type** drop-down list vary according to the LifeSize devices included in your installation.

   The **Audio Recordings** window displays the messages currently uploaded to the target device.
2. Ensure the message type you wish to play is enabled in the **Audio Recordings** window.
3. Click on the message type you wish to play in the **Audio Recordings** window.
4. From the **Message** menu, select **Play Message**.

   The **Play Recording** dialog box appears. You can stop or replay the message you have selected to play.

LIFESIZE MULTIPOINT MESSAGES

The following LifeSize Multipoint messages are available.

Table 4-1 *LifeSize Multipoint Audio Messages*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
0	Connected indication	Sound		Single participant	a participant first connects to a conference
1	Enter conference PIN	Thank you for attending the conference. Enter the conference PIN followed by the pound sign.	Enter PIN code	Single participant	a participant connects to a PIN-protected conference (played after the *Connected indication* sound)
2	Wrong PIN, disconnecting	Incorrect PIN. Disconnecting.	Incorrect PIN code. Disconnecting…	Single participant	a participant tries to join a PIN-protected conference after entering the wrong PIN three times in a row
3	Wrong PIN, enter a valid one.	Incorrect PIN. Enter the correct PIN followed by the pound sign.	Incorrect PIN code. Enter PIN code.	Single participant	a participant tries to join a PIN-protected conference after entering the wrong PIN (less than three times in a row)
4	Reserved				For future use
5	First participant in conference	Thank you for attending the conference. You are the first participant. Please hold.		Single participant	the first participant joins the conference (after the *Connected Indication* and the *Enter conference PIN* messages)
6	New participant joined conference	Tone		All participants	a new participant has joined the conference
7	Participant left conference	Tone		All participants	a participant has left the conference

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
8	Success indication	Tone		Single participant	a DTMF command has succeeded
9	Enter party number	To dial out, please dial the number of the party you wish to invite to the conference, followed by the pound sign.		Single participant	you are in invite mode (after dialing *8 via DTMF) and you do not dial any number for a period of time
10	Reserved				For future use
11	Error indication	Tone		Single participant	a DTMF command has failed
12	Reserved				For future use
13	Moderator privileges required	This action requires moderator privileges.		Single participant	you perform a DTMF command that requires moderator privileges without first becoming a moderator
14	Another moderator exists	Another participant is already moderating the conference.		Single participant	you try to become the moderator via DTMF, but there is already another moderator for the conference
15	Reserved				For future use
16	Initial menu	To return to the conference – press pound. To become the moderator – press 1. To mute or unmute your line – press 2. To control the volume of your line – press 3.		Single participant	you are in DTMF command mode (after dialing * or ** via DTMF) and you do not enter any command for a period of time

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
17	Enter moderator PIN	Enter the moderator PIN followed by the pound sign.		Single participant	you try to become the moderator via DTMF and a moderator PIN is defined
18	Moderator menu	To return to the conference – press pound. To stop moderating – press 1. To mute or unmute your line – press 2. To control the volume of your line – press 3. To change the video layout – press 6. To block admission to the conference – press 7. To dial out – press 8. To mute/unmute all lines except your own – press 9.		Single participant	you are in DTMF moderator mode (i.e. after becoming the moderator via DTMF) and you do not enter any command for a period of time
19	Join sub-conference	You have joined a sub-conference.		Single participant	a participant joins a sub-conference
20	Leave sub-conference	You have left the sub-conference.		Single participant	a participant leaves a sub-conference
21	Reserved				For future use
22	Reserved				For future use
23	Reserved				For future use
24	Reserved				For future use
25	Conference terminating	The conference is about to terminate.		All participants	a conference is about to terminate

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
26	Organizer not yet joined, please wait	Please wait for the meeting moderator.		Single participant	you join a conference in a waiting room mode before the moderator has joined
27	Organizer joined, conference starts	The meeting will now begin.		All participants	the moderator joins a conference in waiting room mode
28	Organizer left, conference waiting	You have been moved to the waiting room, please wait.		All participants	the moderator leaves a conference in waiting room mode
29	Organizer back, conference resume	The meeting will now resume.		All participants	the moderator returns to a conference in waiting room mode
30	Wrong moderator PIN	You have entered an incorrect moderator PIN.		Single participant	you have entered the wrong moderator PIN
31	You are the moderator	You are now the moderator.		Single participant	you have become the moderator of the conference via DTMF
32	Muted	Muted		Single participant	you mute yourself via DTMF
33	Unmuted	Unmuted		Single participant	you unmute yourself via DTMF
34	Volume control menu	To decrease the volume, press zero. To increase, press one.		Single participant	you are in volume control mode (after dialing *3 via DTMF) and you do not enter any command for a period of time
35	Conference admission blocked	Admission to the conference is now blocked.		Single participant	you block admission to the conference via DTMF

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
36	Conference admission allowed	Admission to the conference is now allowed.		Single participant	you allow admission to the conference via DTMF
37	Dialing	Dialing.		Single participant	you invite a participant via DTMF
38	Invalid input	Invalid input.		Single participant	you press an invalid key during a DTMF command
39	Stopped moderating	You are no longer the conference moderator.		Single participant	you have stopped moderating the conference via DTMF
40	Change layout menu	Change layout. Please enter the number of participants to be seen on the screen or press zero for automatic layout.		Single participant	you are in change layout mode (after dialing *6 via DTMF) and you do not enter any command for a period of time
41	Mute/Unmute All menu	To mute all participants except yourself, press zero. To un-mute all participants, press 1.		Single participant	you are in mute/unmute all mode (after dialing *9 via DTMF) and you do not enter any command for a period of time
42	All muted	All participants are now muted.		Single participant	you mute all participants via DTMF
43	All unmuted	All participants are now unmuted.		Single participant	you unmute all participants via DTMF

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
44	Moderator menu (blocked conference)	To return to the conference – press pound. To stop moderating – press 1. To mute or unmute your line – press 2. To control the volume of your line – press 3. To change the video layout – press 6. To allow admission to the conference – press 7. To mute/unmute all lines except your own – press 9.		Single participant	you are in DTMF moderator mode (i.e. after becoming the moderator via DTMF) in a conference whose admission is blocked and you do not enter any command for a period of time
45	Silent				
46	Conference list	Thank you for calling. To select a conference from the list, press the entry number. To create a new conference or join by ID, press zero.		Single participant	you dial the LifeSize Multipoint auto-attendant (with video)
47	Please enter conference ID	Enter the conference ID followed by the pound sign.	Enter conference ID	Single participant	you choose to create or join a conference by ID during an auto-attendant session, or when you dial the LifeSize Multipoint auto-attendant with audio only
48	Invalid conference ID	You have entered an incorrect conference ID.	The conference ID is invalid.	Single participant	you enter an invalid conference ID during an auto-attendant session

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
49	Create conference PIN	To create a PIN code to protect this conference, enter a PIN code followed by the pound sign. Enter only the pound sign if you do not want PIN protection.	Creating a new conference Enter PIN code (optional)	Single participant	you choose to create a new conference during an auto-attendant session
50	Create conference failed	Failed to create a conference.	Failed to create a conference –%reason%. To join an existing conference enter conference ID Comment: %reason% is one of: ■ No resources ■ Not allowed ■ Other When the reason is *other*, no reason is displayed.	Single participant	during auto-attendant session, when conference creation fails. Possible reasons:
51	Create conference – invalid PIN code	You have entered an invalid PIN. Enter a valid PIN using digits only followed by the pound sign.	The PIN code is invalid. Enter valid PIN code	Single participant	during auto-attendant session, when creating a new conference and entering an invalid conference PIN code (PIN code should be digits only)

Table 4-1 *LifeSize Multipoint Audio Messages (continued)*

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
52	Transfer failed	Failed to connect to the conference. Disconnecting.	Failed to connect to the conference –%reason%. Comment: %reason% is one of: ■ No endpoint support ■ Other When the reason is *other*, no reason is displayed.	Single participant	during auto-attendant session, after user has selected a conference, when the transfer to the selected conference fails
53	Invalid conference ID - enter conference	You have entered an incorrect conference ID. Please enter your conference ID followed by the pound sign.		Single participant	during auto-attendant session, after user has entered an invalid conference ID
54	Create conference failed - enter conference	Failed to create a conference. To join an existing conference, enter your conference ID followed by the pound sign.		Single participant	during auto-attendant session, after conference creation has failed (audio only caller)
55	Reserved				For future use
56	Reserved				For future use
57	Reserved				For future use
58	Conference end in 10 min	The conference is about to end in less than ten minutes.			
59	Conference end in 5 min	The conference is about to end in less than five minutes.			

Table 4-1 LifeSize Multipoint Audio Messages (continued)

ID	Message Name	Recorded Message	Displayed Message	Played for …	Played when …
60	Conference end in 2 min	The conference is about to end in less than two minutes.			
61	Conference end in 1 min	The conference is about to end in less than one minute.			
62	Disconnecting	Disconnecting			
63	No input	I did not hear your entry.			

RECORDING A MESSAGE

This section describes how to record a new audio message.

Note There is no limit on the length of individual message files, but the total length of all WAV files should not exceed 250 seconds. An FLS file should not exceed 2000 KB.

Procedure

1 From the **Message** menu, select **New Recording**.

The **New Recording** confirmation box appears and the MSsound recording utility is invoked.

Note MSsound is invoked by default. You can use any recording software that supports the WAV format.

The new message must be recorded in the following formats:

- WAV file
- G.711 (CCITT)
- µ-Law
- 8-bit
- Sampling rate 8kHz

2 Use the recording software, to record a new message and save it to the LifeSize Audio Message Utility directory.

Replacing a Message

This section describes how to replace an audio message.

Procedure

1 In the **Target Type** field, choose the device that uses the message you want to replace.

Note The options available in the **Target Type** drop-down list vary according to the LifeSize devices included in your installation.

2 The **Audio Recordings** window displays the messages currently uploaded to the target device. Click the message type in the **Audio Recordings** window you wish to replace.

3 From the **Message** menu, select **Properties**.

The **Properties** dialog box appears showing the name of the message you selected in the **Message Type** field.

4 (Optional) Enter the text that you want to appear in the **Message Type** field in the **Audio Recordings** window.

5 In the **Video message** field, enter video message text.

6 Click **Browse** to choose the audio message file you wish to use.

The **Replace Recording** dialog box appears.

7 Select the file with which you wish to replace the current message and click **Open** to confirm your selection.

8 Click **OK** in the **Properties** dialog box.

9 The new message appears in the **Audio Recordings** window.

UPLOADING A MESSAGE TO A DEVICE

This section describes how to upload audio messages from the Audio Message Utility to a target device.

Procedure

1. From the **Actions** menu, select **Upload Messages To Target**.

   The **Upload** dialog box appears.
2. In the **General Information** section, enter the IP address of the target device.
3. In the **Login Information** section, enter the user name and password of the target device, as configured in the device network configuration settings.
4. (Optional) Modify the read and write community settings for the target device as follows:
   - Click **Customize SNMP Settings**.

     The **Customize SNMP Settings** dialog box displays.
   - Enter the required read community and write community values and click **OK**.
5. Click **Upload Messages**.

   The **Upload in progress** window appears, and the message files are uploaded and burned onto the target device.

Viewing Message Details

You can view the file name and length of the audio messages listed in the **Audio Recordings** window.

Procedure

1. Click the **Target Type** drop-down list.
2. Choose the device that uses the message you want to replace.

Note The options available in the **Target Type** drop-down list vary according to the LifeSize devices included in your installation.

The names of audio message files currently uploaded to the target device appear in the **Recorded Message** field of the **Audio Recordings** window.

The lengths of audio message files currently uploaded to the target device appear in the **Message Length (sec)** field of the **Audio Recordings** window.

Exiting the Utility

This section describes how to exit the Audio Message Utility.

Procedure

1. Open the **Actions** menu.
2. Select **Exit**.

About Express Setup

The Express Setup is an alternative way of recording, replacing and uploading messages. The Express Setup guides you through the recording, replacing and uploading procedure for each audio message.

You proceed through the Express Setup sequentially for each message type. You are alternately prompted to select to record a new message and to navigate a path to a new message file with which you wish to replace a current file.

As you proceed through the Express Setup, the dialog box displays the name the current message type and the associated message file.

Note You can skip the recording and replacing sequence for each message by clicking **Next** at each step in the Express Setup. You can return to any step in the procedure to change the setup for a particular message by clicking **Back**.

Using Express Setup

This section describes how to use the Express Setup.

Procedure

1. Click **Express Setup** in the **Tools** menu.

   The **Express Setup** dialog box is displayed informing you of the name of the first message file in the selection and provides a check box for indicating whether you wish to create a new recording for the message.

2. Check **Create a new recording** and click **Next**.

   The **Express Setup** dialog box displays the required format settings for the new message and the MSsound recorder is displayed. Use the MSsound recorder or other recording software to record the new message and save it to the Audio Message Utility directory.

3. When you have finished recording a new message, click **Next**.

   The **Express Setup** dialog box displays the path of the current file for the specified message type and the **Replace** button.

4. Click **Replace**.

   The **Replace Recording** window appears showing the directory containing the current sound files for the device.

5. Select the required file and click **Open** to replace this file with the current message file for the specified message.

   When you have completed the recording and replacement procedure, the **Express Setup** dialog box displays the new list of message types and message files associated with each type.

6. Click **Upload**.

   The **Upload** dialog box appears.

7. Type the IP address of the target device.

8. Type the user name and password as defined in the network configuration settings of the LifeSize device.

9. Click **Upload Messages** to complete the upload procedure.

   The **Upload in progress** window displays. The message files are uploaded and burned onto the target device.

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